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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Secretary Of Health And Human Services

Physician Cost-Containment Training Can Reduce Medical Costs

COMPLETED

ORIGINAL

Physicians play a major role in determining the Nation's health care costs, and studies have shown that increased emphasis on training them in cost-containment techniques can produce lower costs. GAO's review showed that, although progress is being made--primarily by medical schools, residency programs, and professional groups--to increase emphasis on such training, more needs to be done by both the medical profession and the Federal Government to foster the teaching of cost-effective medicine.

HRD-82-36
FEBRUARY 4, 1982

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

HUMAN RESOURCES
DIVISION

B-206098

The Honorable Richard S. Schweiker
The Secretary of Health and
Human Services

Dear Mr. Secretary:

This report discusses the status of physician cost-containment training in medical schools, residency programs, and continuing medical education programs.

Studies have shown that lower medical care costs can be achieved through increased emphasis on cost-containment training. Our review showed that efforts are being made primarily by medical schools, residency programs, and medical professional groups to increase emphasis on such training. We believe that, to provide impetus to these efforts, your Department should monitor their progress and, on a carefully selected basis, provide funding for seminars at which medical school faculty and residency program directors can develop strategies, approaches, and methods for teaching cost-effective medicine.

While we have not provided this report for your formal comments, we have discussed these matters with members of your staff.

This report contains a recommendation to you on page 31. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Chairmen of the four above-mentioned Committees and the cognizant legislative committees. Copies are also being sent to the Director, Office of Management and Budget; several medical professional groups; and other interested parties.

We appreciate the cooperation given our representatives during this review and welcome the opportunity to discuss these matters further with you or your staff.

Sincerely yours,

Gregory J. Ahart
Director

GENERAL ACCOUNTING OFFICE
REPORT TO THE
SECRETARY OF HEALTH AND
HUMAN SERVICES

PHYSICIAN COST-CONTAINMENT TRAINING CAN REDUCE MEDICAL COSTS

DIGEST

The more than 400,000 practicing physicians are in a unique position to influence the Nation's multibillion-dollar health care costs. In addition to diagnosing illnesses and providing medical care to patients, physicians also serve as patients' advisors and purchasing agents for health care services that they do not provide themselves. In most cases, physicians determine who goes to the hospital, how long they stay, and what diagnostic and treatment services they receive. Physicians exercise similar control over outpatient care, including prescriptions. In this decisionmaking role, physicians have wide latitude in determining the type and quantity of care patients receive and the settings in which they receive it. (See p. 1.)

The physicians' collective decisions greatly affect the national demand for and utilization of medical resources. About 70 percent of the $278.5 billion expended in 1981 for health care was estimated to be directly influenced, if not controlled, by the decisions of physicians. With such a large impact on health care costs, physicians can play a significant role in reducing these costs.

WHY AND HOW GAO'S STUDY WAS CONDUCTED

The knowledge, skills, and attitudes acquired through educational experiences are principal determinants of the way physicians will practice medicine throughout their careers. Therefore, GAO examined the extent to which physicians' initial and continuing educational and training experiences include elements of health care cost containment; i.e., methods and techniques for providing needed care at the lowest cost.

GAO's objective was to determine (1) the extent to which physician education programs have included cost-containment/cost-effectiveness elements in their curricula and (2) the need for the Federal Government to encourage the inclusion of such elements in these programs. GAO's review included an extensive literature search for information related to (1) the extent of current physician cost-containment/ cost-effectiveness education and (2) the potential effects such education can have on the way physicians practice medicine.

Visits were made to 18 medical schools and 8 residency programs that the literature listed as providing physician cost-containment/ cost-effectiveness education. GAO also sent questionnaires to the deans of all 126 medical schools and to the directors of a statistical sample of 404 of the 4,680 accredited residency programs. The questionnaires were designed to obtain a national perspective on the extent and nature of physician cost-containment/ cost-effectiveness education. Questionnaires were also sent to the sponsors of a statistical sample of 200 of more than 10,000 continuing medical education courses to determine to what extent practicing physicians are being offered the opportunity to receive education in cost-containment/cost-effectiveness techniques. (See p. 4.)

COST-CONTAINMENT TRAINING PROGRAMS CAN BE EFFECTIVE

Research studies have shown that physicians are often unaware of the cost of the medical services they order and that cost-containment training can result in their practicing more cost-effective medicine through shorter hospital stays, fewer laboratory tests, and less frequent followup visits. (See p. 6.)

Medical educational and professional groups have recognized the importance of including cost-containment training in medical education programs. For example, in May 1977, the deans of 110 American medical schools issued a statement expressing concern over the high cost of health care and pledging their support for developing cost-containment educational programs. Also, the American Medical Association in 1978 adopted a resolution recommending that "* * * the economics of care should be incorporated in courses as a part of professional training." (See p. 10.)

COST-CONTAINMENT TRAINING PROGRAMS ARE INCREASING BUT VARY IN CONTENT AND EMPHASIS

Seventy-seven percent (90) of the medical schools responding to GAO's questionnaire said that they were providing cost-containment training to medical students and that 9,930 (68 percent) of their 1981 graduates had received the training, compared to about 8,400 graduates in 1979. Fifty-five percent of the residency programs which responded to the questionnaire said that they were providing cost-containment training. Projecting the questionnaire results to the universe of over 4,600 residency programs, GAO estimates that about 2,154 programs are currently providing such training. (See p. 15.)

The cost-containment training provided varies widely in approach, content, and emphasis. For example:

--Fifty-nine percent of the medical schools teaching cost containment did so using an unstructured program (addressed as the need arises); forty-one percent used a structured approach (planned in advance as part of the curriculum). (See p. 18.)

--The number of hours of c[illegible]tainment training ranges from 1 to 284 [illegible]edical schools and from 1 to 540 among residency programs. (See p. 21.)

--Some medical schools teach cost containment from the standpoint of general economics surrounding medical practice and include instruction in such subjects as sources of health care funds, factors influencing increases in costs, the role of health planning, and the nature of utilization review. Other schools have integrated cost-containment principles into medical practice courses in an attempt to make cost containment an integral part of medical practice--an approach favored by officials of national medical educational and professional groups.

Twenty-seven percent of the continuing medical education course coordinators and instructors who responded to GAO's questionnaire said that cost-containment elements were included in their courses. Projection of the questionnaire results indicated that about 2,195 such courses had provided cost-containment training and had enrolled about 90,600 physicians, residents, and medical students during the September 1979 through December 1980 period. (See p. 17.)

Although most medical schools reported they were providing cost-containment training, many students considered the amount of training inadequate. Sixty-five percent of the respondents to the Association of American Medical Colleges' 1981 annual student questionnaire expressed this view. (See p. 23.)

FACTORS INFLUENCING ESTABLISHMENT OF COST-CONTAINMENT TRAINING

Increasing interest in cost containment among medical school and residency program faculty and administrators is the principal impetus behind the trend toward greater cost-containment training for physicians. On the other hand, the lack of available curriculum time, trained instructors, and training materials are major problems encountered in establishing and operating physician cost-containment training programs. (See p. 25.)

According to some medical educators, the most effective cost-containment training is integrated into the teaching of medical practice during the clinical science phase of medical school and residency instruction. The success of such training hinges on the efforts of medical schools and residency program faculties. (See p. 27.)

FEDERAL ROLE IN COST-CONTAINMENT TRAINING

To date, the Federal role in supporting the development and implementation of cost-containment training has been limited to providing small grants for (1) developing a seminar related to the Professional Standards Review Organization program and (2) preparing a textbook to be used in cost-containment training. (See p. 29.)

CONCLUSIONS

Physicians' knowledge of cost-containment principles has been demonstrated to be an important element in the Nation's efforts to control health care costs. Medical schools and residency programs have been leaders in efforts to increase physician sensitivity to cost effectiveness as an important aspect of medical practice during physicians' formative years. These efforts, however, vary widely in approach, amount, and emphasis.

The ultimate success, or lack thereof, of physician cost-containment training depends largely on the commitment of faculty members to such training. GAO believes, however, that the Federal Government should monitor the medical profession's ongoing cost-containment training efforts and selectively fund conferences and seminars dealing with methods for teaching cost-effective medicine.

RECOMMENDATIONS

To provide impetus to the continued development and expansion of physician cost-containment training as a strategy in reducing the growth of the Nation's health care costs, the Secretary of Health and Human Services should monitor the progress of the medical profession as it incorporates such training into educational curricula and, on a carefully selected basis, provide funding for seminars and conferences at which medical school faculty and residency program directors can develop and share strategies, approaches, and methods for teaching cost-effective medicine.

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ABBREVIATIONS

AAMC	Association of American Medical Colleges
AMA	American Medical Association
CME	continuing medical education
HHS	Department of Health and Human Services
PSRO	Professional Standards Review Organization

CHAPTER 1

INTRODUCTION

Since the mid-1960s, national health care costs have risen dramatically, far exceeding the rate of growth in the gross national product. Health expenditures increased from $42.0 billion in 1965 (6.1 percent of the gross national product) to an estimated $278.5 billion in 1981 (9.7 percent of the gross national product). Recent Health Care Financing Administration projections estimate that, without major changes in the structure or financing of the health care system, expenditures will continue to grow. The Health Care Financing Administration estimates, for example, that health care expenditures will reach $821 billion by 1990 (10.8 percent of the gross national product).

Spurred primarily by the Medicare and Medicaid programs, the percentage of health expenditures coming from all governmental sources increased from 26 percent in 1965 to 43 percent in 1979, while the percentage from private sources decreased from 74 to 57 percent. Medicare and Medicaid, which were established in 1965, drastically increased the Federal Government's role in financing health care costs. Federal health expenditures increased from $6 billion, 13 percent of all health care expenditures, in 1965 to an estimated $61 billion, 29 percent of the national total, in 1979. This share is expected to increase to an estimated 32 percent in 1990.

The recipients of health care expenditures have changed as much as the sources of financing. In recent years, an increasing proportion of the health care dollar has gone for institutional (i.e., hospital and nursing home) care. Whereas hospitals consumed 33.2 percent of national health expenditures in 1965, they absorbed 40.2 percent in 1979. Nursing homes took 5.0 percent of the health care dollar in 1965 and 8.4 percent in 1979. The percentage of health expenditures going to physicians has declined slightly in recent years--from 20.3 percent of the health care dollar in 1965 to 19.1 percent in 1979.

The changes in the recipients of health care expenditures reflect a growing role of institutions in the provision of health care. This growth stems from the greater use of acute care hospitals to provide both inpatient and outpatient care and increased institutional care for the Nation's elderly.

PHYSICIANS' ROLE IN HEALTH CARE COSTS IS UNIQUE

The more than 400,000 practicing physicians occupy a unique position in the health care system. In addition to diagnosing illnesses and providing medical care and treatment to patients, physicians also serve as patients' advisors and purchasing agents for health care services that they do not provide themselves. In most cases, physicians determine who goes to the hospital, how long they stay, and what diagnostic and treatment services they receive. Physicians exercise similar control over outpatient care, including prescriptions. Consequently, in this decision-making role, physicians have wide latitude in determining the type and quantity of care patients receive and the settings in which they receive it. Of necessity, patients rely on physicians for these and other medical decisions.

The physicians' collective decisions significantly affect the national demand and utilization of medical resources. It has been estimated that 70 percent of all expenditures for health care are directly influenced, if not controlled, by the decisions of physicians. With such a large impact on health care costs, physicians can play a significant role in reducing health care costs. For example, physicians' decisions as to the setting in which care will be delivered (office, hospital, home, clinic, etc.), elective surgery, and the necessity of certain diagnostic tests can affect the cost of health care.

Physicians can also use methods of providing health care that have longer term cost control implications. These include teaching patients to adopt healthier lifestyles, detecting and treating disorders before they become serious, and employing more cost-effective ways of delivering care, such as working in teams with other health professionals.

THE MEDICAL EDUCATION PROCESS

Medical education usually begins with 4 years of general college or university studies followed by 4 years in medical school. For graduates wishing to specialize, medical school is followed by several years of graduate medical education, generally in a hospital. Physicians may receive subsequent medical education, commonly referred to as continuing medical education (CME), throughout their careers if they choose to do so. Some States, medical specialty groups, and medical societies require physicians to periodically obtain varying amounts of CME to retain their medical practice license or to remain as members of the groups.

Medical schools' curricula are most often divided into two distinct phases--basic sciences and clinical sciences. The basic sciences phase, generally the first 2 years, consists principally of classroom-type education in basic medical courses--including human anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology--supplemented, as necessary, by laboratory experience. The clinical sciences phase, generally in the third and fourth years (although some schools may begin in the second year), gives students the opportunity to provide patient care under the supervision of physician instructors. Typically, the clinical phase consists of several clerkships of 1 to 3 months in specialty areas, such as internal medicine, obstetrics/gynecology, pediatrics, psychiatry, and surgery.

Graduate medical education, commonly called residency training, usually consists of 3 or more years of education as a house staff member in a teaching hospital. In this role, resident physicians teach medical students, provide care for patients, and further their own education in their specialty. The essentials for residency program accreditation provide that residents' activities be carried out under the supervision of a staff of teaching physicians and emphasize the clinical application of medicine. Depending on the specialty involved, emphasis is placed on instruction at the bedside, in the operating room, and in the delivery room; on related laboratory studies, demonstrations, and lectures; and on conferences and seminars.

Individual States determine who will be trained to practice medicine within their borders. Virtually all States accept, as a part of the licensure process, the results of a three-part examination prepared by the National Board of Medical Examiners. Parts I and II of the examination are generally given to medical students or recent graduates. Part III is administered to physicians who have completed at least 6 months of residency training.

Medical specialty boards certify physicians who have (1) completed the required graduate medical education and (2) passed a certificate examination. Currently, there are 22 specialty boards.

CME is made available to physicians to help them maintain the knowledge and skills used in the practice of medicine. Generally, courses are sponsored by medical schools or hospitals. The length, content, and teaching approach used vary substantially among CME courses. For example, course length ranges from a few hours to several days; content varies according to medical specialties; and teaching approaches include lectures, seminars, conferences, panel discussions, demonstrations, clinical rounds, and television or programed instruction.

During the 1979-80 academic year, the 126 medical schools in the United States had an enrollment of 64,100 students and graduated 15,100 medical doctors. Additionally, there were 4,680 accredited residency (graduate) programs with about 64,500 filled positions.

According to the American Medical Association (AMA) course list, during the period September 1979 through December 1980, about 10,200 CME courses were offered. The results of an AMA questionnaire showed that enrollment at CME courses totaled about 460,000 during 1978-79.

OBJECTIVES, SCOPE, AND METHODOLOGY

Physicians directly influence a large percentage of the Nation's health care costs. Because the knowledge, skills, and attitudes acquired through their educational experiences are principal determinants of the way physicians will practice medicine throughout their careers, we examined the extent to which their initial and continuing educational and training experiences include elements of health care cost containment.

Our objective was to examine (1) the extent to which physician education programs have included cost-containment/cost-effectiveness elements in their curricula and (2) the need for the Federal Government to encourage the inclusion of such training in these programs. 1/ We initially focused our review on physicians' formal medical education--that is, medical school and residency training--and later expanded our efforts to ascertain the extent of cost-containment elements in the numerous CME programs.

At the outset of the review, which was conducted in accordance with GAO's "Standards for Audit of Governmental Organizations, Programs, and Functions," we made an extensive literature search for information related to (1) the extent of current physician cost-containment/cost-effectiveness education and (2) the potential effects such education can have on the way physicians practice medicine.

During our review, we visited 18 medical schools and 8 residency programs that were indicated in the literature as providing physician cost-containment/cost-effectiveness education. The purpose of the visits was to obtain information on the history, content, participation, format, and timing of such training. We also met with school residency officials and faculty responsible for developing and providing the training to medical students and/or physicians.

In addition, we sent questionnaires to the deans of 126 medical schools and to the directors of a statistical sample of 404 of the 4,680 accredited residency programs. 2/ The purpose of the questionnaires was to obtain a broader national perspective on the extent and nature of physician cost-containment/cost-effectiveness education. Information on questionnaire methodology, response rates,

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1/For this report, we defined "cost-containment training" as "* * * education/training in the techniques for providing quality medical care at the lowest possible cost."

2/Because it would have substantially increased our sampling efforts, we did not include teaching programs for osteopathy in our questionnaire survey.

and responses to selected questions is presented in appendixes I and II. We did not review the course content of each school or residency program which reported that it teaches cost containment.

We also sent questionnaires to the sponsors of a statistical sample of 200 CME courses listed in the "Journal of the American Medical Association." The sample was selected from 10,211 non-duplicative courses offered between September 1, 1979, and December 31, 1980. The purpose of the questionnaire was to determine to what extent practicing physicians are being offered the opportunity to receive education in cost-containment/cost-effectiveness techniques. Data on the questionnaire methodology, response rates, and projections are included in appendix III.

We also met with representatives of AMA, the Association of American Medical Colleges (AAMC), the National Board of Medical Examiners, the Texas Medical Association, and the Department of Health and Human Services (HHS). The primary purpose of these meetings was to ascertain the likely effects of increased physician cost-containment/cost-effectiveness education and to identify their current efforts to promote such education.

Because of its financial support for the establishment of physician cost-containment training programs, we performed work at the National Fund for Medical Education--an educational foundation funded by non-Federal organizations. Our work focused on the history of physician cost-containment training and the fund's role in supporting the development and expansion of such training programs. Our work primarily involved interviewing fund officials and reviewing grants awarded to medical schools and residency programs.

CHAPTER 2

COST-CONTAINMENT TRAINING PROGRAMS CAN BE EFFECTIVE

Research studies have shown that physicians are often unaware of the economic impact of the medical decisions they make. Studies have also shown that cost-containment training can result in physicians practicing more cost-effective medicine and, thus, lower medical costs. Such studies have documented reduced lengths of hospital stays, reduced number of laboratory tests, and reduced frequency of patient followup visits as results of physician cost-containment training programs.

Medical educational and professional groups have recognized the importance of including cost-containment training in medical education programs. For example, AMA in 1978 adopted a resolution recommending that "* * * the economics of care should be incorporated in courses as a part of professional training." Additionally, the National Fund for Medical Education has provided over $2 million to support the development and implementation of physician cost-containment training.

In response to a 1978 AAMC survey, only 18 percent of the Nation's medical schools reported that their curricula included an identifiable cost-containment program. Using somewhat different criteria, the Liasion Committee on Medical Education found in a 1981 survey that 81 percent of the schools had incorporated cost containment into their curricula. A 1979 AAMC survey of teaching hospitals reported that 13 percent of the respondents had active cost-containment programs in their residency training programs.

STUDIES SHOW PHYSICIANS LACK AWARENESS OF MEDICAL CARE COSTS

Studies dating back to the late 1960s have shown that physicians were often unaware of the economic effects of the decisions they make. For example, a study 1/ conducted at the University of Rochester showed that, during 1966-69, the number of tests ordered for patients hospitalized for a diabetic condition increased 27 percent. Information obtained from physicians during the study indicated that they were unaware of the economic impact of the increased number of tests. The researcher concluded that the physicians studied tended to order excessive laboratory tests routinely as part of general patient workups and that patterns of laboratory use bore little relationship to individual patients' needs.

1/Footnotes for chapter 2 are on page 14.

A 1974 study 2/ at the Medical College of Ohio sought to determine whether medical students, residents, and medical school faculty were aware of the costs of laboratory tests. Participants were asked to estimate the cost of 31 frequently used diagnostic laboratory tests. Study results showed that only 35 percent of the responses indicated a "good" knowledge of the tests' costs. Of the 65 percent "poor" knowledge responses, most underestimated costs. The study authors concluded that "Given the data of this report that physicians and student physicians have a limited knowledge of the costs of laboratory test * * * we recommend that physicians should be better informed of the cost of diagnostic tests."

The results of a study reported in the January 1978 "Journal of Family Practice" 3/ showed that physicians in a New Jersey hospital correctly identified the cost of less than 50 percent of 20 diagnostic and therapeutic medical procedures. The study concluded that the average physician has an unacceptable knowledge of the hospital costs being charged patients.

An additional study 4/ on physicians' cost awareness was carried out during 1977 and 1978 at Jackson Memorial Hospital, Miami, Florida (affiliated with the University of Miami School of Medicine). The study was designed to identify the extent to which medical students, residents, and faculty were aware of the hospital's charges for 17 commonly ordered tests, procedures, and services. Most physicians underestimated the charges for the selected procedures and services. The researchers again concluded that physicians are generally unfamiliar with the cost of items they order for patients.

RESEARCH SHOWS PHYSICIAN COST-CONTAINMENT EDUCATION CAN REDUCE MEDICAL COSTS

Since 1970, several researchers have demonstrated that physician cost-containment education can alter physicians' behavior and can lower medical care costs without reducing the quality of care provided. Research efforts were conducted at medical schools and hospitals and involved medical students and residents. The studies assessed the impact of one or more educational interventions on the use and cost of medical resources, such as laboratory tests, hospital admissions, and/or hospital lengths of stay. Most of the studies we reviewed showed reduced use of medical services and/or cost reductions, while a few showed only minor improvements or were not conclusive.

Eight of 11 studies we reviewed assessed the impact of educational efforts on laboratory use. The researchers used one or more of several educational interventions, ranging from formal classroom approaches to informal clinical approaches. Six of the eight studies documented laboratory use reductions, one showed only a short-term reduction, and one showed a statistically insignificant increase in laboratory use after educational intervention.

In the six studies, researchers documented significant reductions in medical costs and/or the amounts of medical services provided. For example, Martin, et al. (1980), 5/ reported reductions of 29 to 47 percent in the number of laboratory tests ordered by first year residents. This study used three groups of residents in a teaching hospital and two methods to identify the effects of the interventions on test ordering habits. One group of residents was subjected to patient chart review by medical school faculty and test use discussions, and one group was provided moderate financial incentives for reducing the number of tests. The third group was used as a control.

During the 1-year study, the researchers found that instruction in test costs, strategies, and overuse significantly reduced the number of laboratory tests ordered during the test period by all three groups. The reductions ranged from 29 percent for the financial incentive group to 47 percent for the group subjected to chart reviews--an average reduction of $455 per hospitalization. The researchers also found that the ordering habits of the group subjected to chart review continued to improve after intervention, whereas the habits of the other two groups approached prestudy levels. The researchers concluded that chart review appears to be an effective educational tool for modifying physician behavior regarding the ordering of tests.

In another study, Eisenberg 6/ found that, while physician education programs reduced the use of laboratory tests, the effects need to be periodically reinforced. The researcher conducted a 6-week educational program on the clinical use of a specific laboratory test and, during the following 6-month period, found that use of the test had declined by 32 percent. However, after 18 months, the test usage had returned to the preprogram level. He concluded that repeated education or incentives may be necessary for long-term success of educational programs designed to modify clinical behavior.

Another study by Eisenberg, et al. (1977), 7/ used a computer audit technique to identify overuse of labortory tests. Researchers notified individual physicians about their overuse of selected tests with the expectation that the data and notification would reduce overutilization. However, no significant change occurred, and the study concluded that education unsupported by incentives for change may be unsuccessful.

Two studies addressed the impact of specific educational efforts on hospital lengths of stay. Lyle, et al. (1979), 8/ reported a 21-percent decrease in the average lengths of stay of general medicine service patients as a result of a cost-containment program instituted at Charlotte Memorial Hospital in

1975. The study assessed the impact of the cost-containment program on inpatient costs generated by 75 residents over a 3-1/2-year period.

Over the study period, attending physicians reviewed cost data on 2,425 inpatients and discussed with their residents the cost implications of the patients' diagnostic and treatment regimens. The study showed that the average length of stay decreased from 9.9 to 7.8 days (or 21 percent) for the hospital's general medicine service. Researchers concluded that, in a teaching setting, improvements in practice habits and reductions in costs can occur through appropriate cost-containment training. They further concluded that teaching physicians to evaluate costs and benefits of individual medical actions early in their development may prevent them from developing costly medical practice habits.

Similar results were reported by Mitchell, et al., in 1975. 9/ Through peer review, the investigators found that the lengths of postoperative stay for gall bladder surgery patients varied significantly among five surgeons. In the review process, investigators used criteria agreed upon by physicians who compared their own records to the criteria.

After the results were presented to the surgery department, physician behaviors changed. Average postoperative stays of 2 surgeons' patients decreased from 7.32 to 6.33 days and from 6.71 to 6.07 days, respectively.

Another study we reviewed more broadly addressed physicians' management of patients. This study reported decreases in the cost of medical care from the use of a system designed to enhance physician management skills to provide high-quality care at reasonable costs. According to Tufo, et al., 10/ and 11/ during a 5-year test period at a University of Vermont clinic:

--Hospital use declined by 63 percent.

--Per-patient ambulatory visits to the clinic decreased by 24 percent, primarily because of decreases in frequencies of followup visits.

--Expenditures by patients decreased 19 percent, primarily because of decreased laboratory use and reduced hospitalization.

The approach used in the study, known as the problem-oriented system, provided for applying basic management principles to medical practice. The system required physicians to define medical care goals, set standards, compare performance to the standards, and assess results. The system emphasized to physicians that high-quality, reasonable cost care can best be provided by defining desired outcomes and then designing a specific medically sound plan for achieving the outcomes. Periodic feedback was used as a tool to educate physicians on needed changes in medical practice. The study concluded that physician practice behavior can be changed and that high-quality, lower cost medical care can result.

MEDICAL ORGANIZATIONS RECOGNIZE NEED FOR PHYSICIAN COST-CONTAINMENT TRAINING

In recent years, the health care industry has generally recognized that medical education institutions need to include physician cost-containment training as part of their medical curricula. National and State medical organizations and associations, along with private foundations and health insurance companies, have encouraged and financed the development and implementation of such cost training. These groups have recognized the positive potential in educating physicians to become more cost-conscious users of medical services and to more carefully select care settings.

Since 1976, the National Fund for Medical Education's first priority has been to support physician cost-containment educational programs. According to the Fund president, before 1975, few medical schools and CME programs included courses to teach physicians about the economic impact of their clinical decisions. Further, the Fund views CME courses for practicing physicians as important influences that can produce almost immediate financial impact since the physicians' practice habits are directing the flow of medical expenditures.

Since 1976, the Fund has given high priority to providing financial support to medical schools, residency programs, and CME courses for developing and implementing physician cost-containment training programs. During the 4-year period 1977-80, the Fund awarded 51 grants totaling more than $2.4 million to medical schools, residency programs, and CME course sponsors in support of their efforts to teach physicians the prudent use of health resources.

Several Blue Cross/Blue Shield plans have provided funds to medical schools and residency programs to help develop and evaluate cost-containment training programs. For example, in 1978, Blue Cross of Greater Philadelphia awarded about $260,000 to the General Medicine Section, Hospital of the University of Pennsylvania, to fund a follow-on Eisenberg study (see p. 8) dealing with the detection and correction of overuse of laboratory tests.

Also, Blue Cross/Blue Shield of Columbus, Georgia, awarded a 2-year $100,000 grant to the University of Georgia to develop and evaluate a cost-containment training program for medical students and residents. The 1980-81 project was designed to train participants in the proper use of medical resources by emphasizing the use of medical logic and sound medical judgment. Other Blue Cross/Blue Shield plans have funded similar projects.

In May 1977, the deans of 110 American medical schools issued a statement expressing concern over the high cost of health care and pledging their support for developing cost-containment educational programs. In part, their statement said:

> "* * * Because of the key role played by doctors in determining many of the costs of care, we believe the Nation's health care system can be made cost conscious without compromising the quality of care delivered.
>
> "We believe all physicians must become knowledgeable about the fiscal aspects of health policy and sensitive to the economic consequences of their professional decisions. * * *
>
> "If we make these young physicians responsive to the economic as well as medical challenges of our times, we believe it will be a major step in the evolution of a health care system that is the best in the world but still one the nation can afford. We are therefore determined to develop educational programs that will alert our students to these issues."

The National Commission on the Cost of Medical Care 1976-1977, established by the AMA Board of Trustees, made a comprehensive study addressing the problem of escalating health care costs. The study concluded that there was an urgent need to strengthen cost consciousness as a means of restraining health care cost increases. The Commission recognized that health care providers were generally not as aware as they should be of costs and alternative treatment settings. It also recognized that, since physicians are the principal decisionmakers in treating a patient's medical condition, their role is critical in determining the cost of health care. Believing that certain changes were needed in physician education and training to foster acceptance of cost-effective clinical decisionmaking, the Commission made the following recommendation:

> "Recommendation 38: Curricula on Economics of Health Care
>
> A. Medical, dental, and osteopathic schools should develop curricula designed to expose students to the economics of the care they deliver, the nature of resource scarcity, and a variety of health care settings.
>
> B. With the sponsorship of appropriate professional societies, and with the use of a good textbook, the economics of care should be incorporated in courses as a part of professional training. The material should be mandatory and subject to examination." (Underscore provided.)

In June 1978 the AMA House of Delegates formally adopted the recommendation but qualified it as follows: "* * * the material on the economics of health care should be integrated into all classes rather than conducted as special courses in economics."

Physician specialty organizations have also endorsed the educational approach to cost containment. For example, as part of the medical profession's voluntary effort to reduce health care costs, the College of American Pathologists, in August 1978, pointed out that past training in the use of laboratory services emphasized the scope and completeness of patients' examinations and testing. Recognizing that now there is a need for training programs to explore with physicians and medical students the appropriate use and cost implications of laboratory services, the College recommended that all hospitals establish CME programs to provide such training.

MEDICAL PROFESSION SURVEYS OF MEDICAL SCHOOL AND RESIDENCY COST-CONTAINMENT TRAINING

In recent years, groups within the medical profession have made surveys to determine to what extent medical schools and residency programs have incorporated into their curricula issues dealing with medical costs and the physicians' role in controlling their costs.

In July 1978 AAMC conducted a questionnaire survey of 119 U.S. medical schools to determine the extent of medical school activity in "instructing future health care practitioners in cost-containment strategies." Specifically, the questionnaire asked the medical schools' deans:

> "Does your medical school have an identifiable program specifically designed to teach health care cost containment?"

Of the 119 schools responding, 21 (18 percent) had fully implemented programs and 2 had partially implemented programs. Most of the programs were relatively new. Of the 23 operating programs, 20 had been in operation for 5 years or less--confirming that, until recently, few medical schools had included cost-containment training in their curricula.

Each year, the Liaison Committee on Medical Education surveys medical schools to obtain information on financing, enrollment, curriculum, and other facets of their programs. The 1980-81 questionnaire, which was returned in June 1981, requested information on whether the schools were providing instruction in health care cost containment. Of the 126 schools, 102 (81 percent) reported that cost-containment training had been incorporated into their curricula. The survey found that the medical schools were using various approaches and methods for teaching cost containment.

For example, 12 schools said they had required courses, while 18 provided only electives. Seventy-two schools integrated the subject into their general curricula.

Before our study, only one attempt had been made to ascertain the extent of organized cost-containment educational programs in teaching hospitals' residency programs. That effort, made by AAMC in March 1979, surveyed more than 400 hospitals that are members of its Council of Teaching Hospitals. According to AAMC's Department Director of Teaching Hospitals, 40,775 (72 percent) of the 56,350 residents in training during 1979 were affiliated with hospitals that were Council members.

The AAMC questionnaire asked hospital officials:

> "Does the hospital sponsor or participate in an identifiable educational program for hospital cost containment?"

Of the 201 respondents, 26 (13 percent) said they had active cost-containment programs targeted to their resident physicians. As with the medical school programs, the hospitals indicated that 87 percent of the programs had been operating for 5 years or less.

Notes:

1/Paul F. Griner and Benjamin Liptzin, "Use of the Laboratory in a Teaching Hospital," Annals of Internal Medicine, Vol. 75, No. 2, August 1971, pp. 157-163.

2/James K. Skipper, Jr., and others, "Research Report Physicians' Knowledge of Cost: The Case of Diagnostic Tests," Inquiry, Vol. XIII, No. 2, June 1976.

3/Stephen P. Kelly, "Physicians' Knowledge of Hospital Costs," The Journal of Family Practice, Vol. 6, No. 1, 1978, pp. 171-172.

4/Stephen J. Dresnick and others, "The Physicians Role in the Cost-Containment Problem," Journal of the American Medical Association, Vol. 214, No. 15, April 13, 1979, pp. 1606-1609.

5/Albert R. Martin and others, "A Trial of Two Strategies to Modify the Test-Ordering Behavior of Medical Residents," The New England Journal of Medicine, December 4, 1980, pp. 1330-1336.

6/John M. Eisenberg, "An Educational Program to Modify Laboratory Use by House Staff," Journal of Medical Education, Vol. 52, July 1977, pp. 578-581.

7/John M. Eisenberg and others, "Computer-based Audit to Detect and Correct Overutilization of Laboratory Tests," Medical Care, Vol. XV, No. 11, November 1977, pp. 915-921.

8/Carl B. Lyle, Jr., and others, "Teaching Cost Containment to House Officers at Charlotte Memorial Hospital," Journal of Medical Education, Vol. 54, November 1979, pp. 856-862.

9/John H. Mitchell and others, "Cholecystectomy Peer Review: Measurement of Four Variables," Medicare Care, Vol. XIII, No. 5, May 1975, pp. 409-416.

10/Henry M. Tufo and others, "Problem-Oriented Approach to Practice, II. Development of the System Through Audit and Implication," Journal of the American Medical Association, Vol. 238, No. 5, August 1, 1977, pp. 414-417.

11/Henry M. Tufo and others, "Problem-Oriented Approach to Practice, II. Development of the System Through Audit and Implication," Journal of the American Medical Association, Vol. 238, No. 6, August 8, 1977, pp. 502-505.

CHAPTER 3

COST-CONTAINMENT TRAINING PROGRAMS ARE INCREASING BUT VARY IN CONTENT AND EMPHASIS

Increasingly, medical schools and residency programs are providing cost-containment training as part of physicians' medical education. In addition, 27 percent of the CME courses offered during late 1979 and throughout 1980 devoted some time to such training.

The training provided, however, varies widely as to approach, content, and emphasis. For example, some medical schools approach cost containment from the standpoint of the general economics surrounding medical practice and include instruction in such subjects as sources of health care funds, factors influencing cost increases, the role of health planning, and the nature of utilization review. Other schools have integrated cost-containment principles into medical practice courses in an attempt to make cost containment an integral part of medical practice.

INCREASED EFFORTS TO PROVIDE COST-CONTAINMENT TRAINING

Since the initial medical profession surveys to determine the extent to which medical schools and residency programs were providing cost-containment training (see p. 12), the number of schools and programs that include cost containment as part of their instructional activities has grown substantially. Further, our 1981 survey showed that about 27 percent of the more than 10,000 CME courses offered from late 1979 through 1980 included cost-containment elements in their courses of instruction.

In our December 1980 survey of medical schools and residency programs, we asked program officials:

> "Does your medical school (or residency program) currently provide cost-containment training to undergraduate medical students (or residents)?"

We categorized the types of education/training we considered as cost-containment training as follows:

> "A cost-containment education program can be carried out by using training activities such as

(1) courses,

(2) clerkships, rotations, and 1/

(3) special features (seminars, symposia, workshops, lecture series, etc.).

These activities may be designed solely for the purpose of cost-containment training (e.g., a course in cost-containment techniques) or may be devoted only in part to cost-containment training (e.g., a single session devoted to cost containment in a course or series of management conferences). The content of the activities may be planned (e.g., following a syllabus in a course) or not planned, (e.g., discussions during ward rounds)."

We received usable responses from 117 (93 percent) of the 126 medical schools and 348 (86 percent) of the 404 sampled residency programs (see apps. I and II).

Seventy-seven percent (90) of the 117 medical schools responding to our questionnaire said that they were providing cost-containment training to medical students and that about 9,900 (68 percent) of the 1981 graduates of these schools had received the training, compared to about 8,400 (60 percent) of the 1979 graduates (see app. I).

Fifty-five percent of the residency programs responding to our questionnaire said that they were providing cost-containment training. Projecting the questionnaire results to the adjusted universe of 3,915 residency programs, we estimate that about 2,154 programs are providing such training. As shown in the following table, the results of our questionnaire survey also showed that an estimated 10,367 (61 percent) of the residents who completed or terminated their residencies in 1981 had received some cost-containment training--a slight increase over the number of residents receiving such training in the 2 previous years (see app. II).

1/In the questionnaires we sent to residency program officials, we substituted "routine clinical training (grand rounds, patient management conferences, etc.)," which are specific activities of residency programs.

Estimated Number of Physicians Who Received Cost-Containment Training in Residency Programs

School year	Questionnaire result--percent of residents who received cost-containment training	Projections of total number of residents who received cost-containment training
1978-79	56.9	8,896
1979-80	59.8	9,892
1980-81 (estimated)	61.0	10,367

In March 1981, we surveyed a statistically selected sample of 200 of the more than 10,000 CME courses 1/ offered between September 1979 and December 1980. Twenty-seven percent of the course coordinators and instructors who responded to our questionnaire said that cost-containment elements were included in their courses. Projecting the questionnaire results, we estimate that about 2,195 CME courses providing cost-containment training had enrolled about 90,600 physicians, residents, and medical students during the September 1979 through December 1980 period (see app. III).

The outlook for physician cost-containment training is encouraging. For example, officials of 8 medical schools and 28 residency programs indicated that they are planning to begin cost-containment training in the near future, generally within the next 2 years. Overwhelmingly, the medical schools and residency programs that teach cost containment indicated that it has become a permanent part of the curriculum--a further indication of the future prospects of cost-containment training. For example, of the 90 schools providing such training, officials at 82 (90 percent) of them indicated that at least one of the activities incorporating this training was considered a permanent part of the curriculum. Further, of the about 2,154 residency programs with cost-containment training responding to our questionnaire, we project that 1,888 programs had at least one activity that was a permanent part of the training program (see apps. I and II).

Of CME questionnaire respondents that said they were not teaching cost containment, 6 percent said there were plans to add such training to future versions of the course. Projecting these results, we estimate that cost containment will be added to about 360 courses.

1/CME courses are sponsored by medical schools, hospitals, and other groups to provide education or training to maintain, develop, or increase the knowledge, proficiencies, and skills used by physicians in providing services needed by the public or patients.

APPROACH TO AND EMPHASIS ON COST CONTAINMENT VARY WIDELY AMONG MEDICAL SCHOOLS AND RESIDENCY PROGRAMS

Medical schools and residency programs have taken vastly different approaches and devote substantially different amounts of time to teaching the concepts, principles, and practices of medical cost containment. While the most notable differences were among the medical schools, several areas of significant variation also occurred among the residency programs.

Structured versus unstructured approaches

We asked medical school deans and residency program officials whether their cost-containment programs were structured, identifiable, and planned.

Fifty-nine percent (53) of the 90 medical schools 1/ teaching cost containment indicated that their programs were unstructured and provided cost containment when the opportunity arose. The other 41 percent (37 schools) reported that their programs included cost containment as a planned activity. Schools with unstructured programs rely heavily on faculty members to determine when the training is appropriate, how much instruction is needed, and what the content of the training will be (see app. I).

Ninety percent of the residency program officials responding to this question indicated that their programs were unstructured and taught cost containment as the need or situation dictates. Thus, only 10 percent of the residency programs approach cost containment as a preplanned activity. Based on these data, we estimate that 1,888 residency programs teach cost containment in an unstructured format and 208 use a structured approach (see app. II).

Activities in which cost-containment instruction is provided

We asked medical school and residency program officials whether the cost-containment training was provided in a course, in a special feature of the program (i.e., seminar, symposium, workshop, or lecture series), in a clinical setting, or in a combination of these activities.

1/One school indicated it had a cost-containment program but provided no information on program characteristics.

Medical schools employed a wide range of activities to present cost containment. Combinations of courses and clerkships were the most frequently used activity (33 percent). Individual courses (20 percent); clerkships (11 percent); and combinations of courses, clerkships, and special features (18 percent) were used by a substantial number of schools (see app. I).

Overwhelmingly, residency program officials reported that cost containment is taught in only the clinical (hospital) setting. Based on our questionnaire, we estimate that 1,470 residency programs teach cost containment in the clinical setting, which is consistent with the location of most residency training (see app. II).

Instructional methods

Within each activity, medical schools and residency programs conduct cost-containment training through various instructional methods, such as lectures, case studies, chart audits, management conferences, and discussion groups. Two instructional methods used by most medical schools were classroom lectures (used by 78 schools) and discussion groups (used by 76 schools). The next most popular methods medical schools used to teach physician cost containment were ward rounds and case studies, each used by 50 schools. Other commonly used instructional techniques included inpatient chart audits (41 schools), grand rounds [1] (36 schools), ambulatory chart audits (35 schools), and management conferences (30 schools) (see app. I).

As with the medical schools, most residency programs used lecture and discussion groups. Other widely used methods included ward rounds, clinical-pathologic conferences, and grand rounds.

Subject area emphasis

Both medical schools and residency programs with cost-containment training are emphasizing the physicians' role in generating costs and their responsibility for cost containment. Beyond this area, however, there was wide diversity among the schools and programs in the areas of emphasis.

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[1] A teaching technique in which a senior physician conducts patient rounds to expose staff to a variety of diseases, illnesses, and treatments within a selected medical service.

Our survey results showed that major emphasis is given to the role of the physician. 1/ For example, 71 percent of the schools and 75 percent of the residency programs placed major emphasis on the "role and responsibility of physicians for cost containment."

Two other subject areas relating to the physicians' roles as cost generators and cost controllers were rated as areas of major emphasis by at least 63 percent of the respondents. Only two other subjects--benefits/costs of diagnostic tests and familiarization with the costs of diagnostic tests--were indicated as receiving major emphasis by about 60 or more percent of the respondents. (See apps. I and II.)

Our survey results also indicated that, except for the five areas discussed above, there is a wide variation in schools' and programs' subject area emphasis and a distinct lack of consensus among the educators regarding the appropriate content of cost-containment programs. This lack of consensus is further shown by the substantial variance among medical schools and residency programs in the emphasis they placed on about one-third of the subject areas we listed. For example, about half the medical schools placed a major emphasis on the appropriate use and cost of X-rays, while the other schools placed only moderate to little or no emphasis on this subject. Similarly, 46 percent of the residency programs placed major emphasis on providing training in the most appropriate setting for treating patients, while 54 percent placed only moderate to little or no emphasis in this area (see apps. I and II).

Similarly, the focus of cost-containment training appears to be taking two distinct courses. Some medical schools and residency programs focus on the general economics of health care, while others focus on specific actions physicians may take, the economic impact of these actions, and methods for achieving desired results in the most cost-effective manner. The latter focus is intended to establish cost awareness as an integral element in the day-to-day medical decisions physicians make.

1/The questionnaire asked respondents to indicate the amount of emphasis placed on certain subject areas during cost-containment training. The possible responses were little or no emphasis, some emphasis, moderate emphasis, substantial emphasis, and great emphasis. For reporting purposes, however, we considered any response of substantial or great emphasis as receiving major emphasis.

Extent of physician cost-containment training

The deans of 61 schools estimated the number of hours their medical students were exposed to cost-containment training. The number of contact hours offered ranged from 1 to 284, with 66 percent of the schools offering 20 or fewer hours. Eight percent of the schools offered more than 100 hours (see app. I).

Officials at 57 of the residency programs estimated the number of contact hours the residents were exposed to cost-containment training. The estimates of contact hours offered ranged from 1 to 540 hours. Fifty percent of the respondents said they offered 20 or fewer hours of cost-containment training, while about 28 percent offered more than 70 hours.

Officials of the remaining schools and programs with cost-containment training indicated that they could not estimate the number of contact hours medical students were exposed to cost containment. In responding to our questionnaire, the deans indicated that (1) the training is too well integrated into the curriculum to estimate the time devoted to instruction or (2) the time devoted depends on the interests of the faculty members or students.

The overwhelming majority of the medical schools and residency programs with cost-containment training require all students or resident physicians to receive such instruction. Of the schools and programs that teach cost containment, 88 percent and 87 percent, respectively, reported that all students or residents are required to attend.

Visits to medical schools confirm wide variations in emphasis, methods, and focus

The information we received in response to our medical school questionnaire confirmed the results of our visits to 18 medical schools, which indicated the approaches to and extent of cost-containment training varied widely.

For example, at one Midwestern school, the program for teaching physician cost containment is structured and required for each medical student. The training is planned in advance and formally presented to the students in both the basic and clinical sciences phases of initial training.

The students' first exposure to cost-containment training is through a course entitled "Introduction to Cost Effective Clinical Methods." This course, which is required for second year medical students, entails about 65 contact hours which address cost-effective approaches to providing patient care, such as:

--Defining desired patient medical results or treatment outcomes.

--Using scientific methods [1] for gathering patient history data, and examining and treating patients.

--Considering costs in terms of physician and patient time, the risks of diagnostic studies, and charges for physician and other medical services.

--Fostering patient health education.

The second point of required cost-containment education occurs in the students' fourth year of medical school and is integrated into the clinical clerkship setting, where protocols [2] are used to treat specific medical problems. Through the protocols, students are trained to deliver high-quality care at the most reasonable cost. The protocols allow supervising physicians to intervene during patient encounters and correct the variances between protocol requirements and the student's intended treatment. Consequently, the students are provided immediate educational feedback, and patients are assured of both high-quality and cost-effective care. According to program officials, the use of protocols as an institutional and practical tool reinforces the use of the scientific method emphasized during the first encounter with cost-containment training.

In contrast, a Northeastern school has taken a different, more general approach to cost-containment training. During the first year, students receive an estimated 3 contact hours of cost-containment instruction as part of a course entitled "System of Health Care." Students receive instruction in the broad issue of cost containment. Selected course topics include Paying for Health Care, Facilities for Health Care, Medical Politics, Interest Groups, and National Health Care Policy and Forms of Medical Practice.

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[1] Methods which involve the scientific pursuit of knowledge, including problem statement, data collection, hypothesis formulation, and hypothesis testing.

[2] Protocols are validated standards of care that specify medical procedures to be used throughout all phases of patient care, such as history taking, physician examination, diagnostic testing, and treatment regimen.

School officials explained that students receive further exposure to cost containment during their fourth year rotating clerkships. This instruction is provided by two instructors who have a personal interest in cost containment and informally include cost-containment topics in their courses. The future of cost-containment training at this school appeared to be somewhat uncertain since one of the instructors was planning to leave.

Medical students report time devoted to cost containment is inadequate

Although most medical schools reported they were providing cost-containment training (see p. 16), many students considered the training to be inadequate.

Annually, AAMC asks graduating medical school students to complete a questionnaire assessing their medical education. The questionnaire results are reported to the schools for their use in planning program changes.

Among other things, the questionnaire asked the 1981 graduating students to indicate whether the time devoted to medical care cost control was excessive, appropriate, or inadequate. Almost two-thirds of the respondents said that the amount of time devoted to such training was inadequate, as shown in the following table.

Adequacy of Time Devoted to Medical Care Cost Control

	Number of students	Percent
Inadequate	6,937	65
Appropriate	3,591	34
Excessive	128	1
	10,656	100

An example of students' views regarding the emphasis placed on cost-containment training was shown by student evaluations of a health-economics seminar held at one of the medical schools we visited. As part of the school's efforts to increase cost-containment awareness and to emphasize the significance of the medical cost issue, the school held a 1-day seminar for senior medical students. At its conclusion, the students were asked to evaluate the seminar. Their comments indicated that the amount of cost-containment training at the school was inadequate. The students suggested expanding the educational content of the seminar by including more instruction about what physicians can do to promote self-regulation and control costs. The students further suggested that, among other things, more emphasis be given to management of individual medical cases and cost-benefit analysis of hospital and laboratory procedures and tests.

APPROACH TO AND EMPHASIS ON COST CONTAINMENT VARY AMONG CME COURSES

As with the medical school and residency programs, we found major differences in the approach and emphasis given to cost containment in CME courses.

Structured versus unstructured approaches

Sixty-seven percent of the 43 CME courses with cost containment reported that an unstructured approach is used--that is, the topic of cost containment is not planned in advance but is addressed as the need arises. The other 33 percent said cost containment is addressed as a planned activity. Based on this data, we estimate that 1,481 programs use the unstructured approach and 715 use the structured approach (see app. III).

Instructional methods

CME course officials reported lecture and discussion groups as the most frequently used instructional methods. We estimate that 1,889 and 1,379 CME courses use lecture and discussion groups, respectively. Other methods were also used in many courses. For example, audiovisual presentations were used by an estimated 1,021 courses, and case studies were used by an estimated 715 (see app. III).

Subject area emphasis

Our questionnaire results show that the CME cost-containment courses have a slightly different emphasis than the medical school and residency courses. Although the physician's role in controlling costs was emphasized, so were several other topics that appear to have greater applicability to practicing physicians. These topics include the relationship of quality and costs, criteria for selecting the most appropriate level of hospital care, benefits/costs of diagnostic tests, benefits/costs of drugs, appropriate use and cost of X-rays, and techniques for medical audit and utilization review (see app. III).

CHAPTER 4

FACULTY AND ADMINISTRATOR INTEREST LEADING TO INCREASED COST-CONTAINMENT TRAINING--BUT BARRIERS REMAIN

Increasing interest in cost containment among medical school and residency program faculty and administrators is the principal impetus behind the trend toward greater cost-containment training for physicians. On the other hand, the lack of available curriculum time, the lack of trained instructors, and the lack of training materials are major problems encountered in establishing and operating physician cost-containment training programs.

According to the medical educators we talked with, to be most effective, cost-containment training must be integrated into the teaching of medical practice during the clinical science phase of medical school and residency training. They noted that the success of such training hinges on the efforts of medical schools and residency program faculties.

FACTORS INFLUENCING ESTABLISHMENT OF COST-CONTAINMENT TRAINING PROGRAMS

The interest among medical school and residency program staff members and administrators was the most frequently given reason for establishing cost-containment training programs. Using a list of nine factors, we asked medical school and residency program officials to indicate the extent to which each factor influenced the decision to start such a training program. The officials indicated that the major [1] factor was the "interest of one or a few medical school (or residency program) staff members." To illustrate, 70 percent of the medical schools and 47 percent of the residency program respondents to this question indicated that interest among staff members was a major factor in their decision to establish physician cost-containment training. Urging of medical school and hospital administrators was the second ranked factor (see apps. I and II).

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[1] The questionnaire asked respondents to indicate to what extent certain factors influenced their decision to begin cost-containment training. The possible responses were little or no extent, some extent, moderate extent, substantial extent, and very great extent. For reporting purposes, however, we considered any response of substantial or very great as a major reason for their decision.

Analysis of respondents' written comments shows that the interest of staff members and administrators may have been stimulated by the expressed concerns and interests of the educational and professional medical groups. As pointed out in chapter 2, AMA has encouraged medical institutions to incorporate cost-containment training into their medical curricula. Also, AAMC's inquiries to schools and teaching hospitals regarding the extent to which they provide students with such training demonstrates interest on the part of organized medicine. Written comments by several respondents stated that encouragement by organized medicine was a major factor influencing their decision to start teaching physician cost containment.

Also, based on their comments, medical officials' interest in teaching cost containment has apparently been encouraged by the belief that high-quality medical care and good medical practices normally result in cost-effective treatment.

CME course officials rated the interest of other physicians, urging of the Federal Government, and urging of hospital administrators or staff as the most significant factors behind the decisions to include cost containment in courses (see app. III).

BARRIERS TO ESTABLISHING AND OPERATING COST-CONTAINMENT PROGRAMS

Medical school and residency program officials indicated that the lack of curriculum time was the major barrier to establishing and operating cost-containment training programs. Other barriers cited included the lack of trained instructors, readily available training material, and financial resources. 1/

In response to our questionnaire, officials of medical schools both with and without cost-containment programs reported that the lack of curriculum time was the most severe barrier to establishing and operating cost-containment training. To illustrate, 75 percent of the respondents at schools without programs and 46 percent of the respondents at schools with programs indicated that this was a major barrier (see app. I).

In early 1981, AAMC officials told us that finding time in the medical school curriculum to add any new topic is difficult.

1/The questionnaire asked respondents to indicate to what extent certain problems had been encountered in implementing and/or operating cost-containment training. The possible responses were little or no extent, some extent, moderate extent, substantial extent, and very great extent. For reporting purposes, however, we considered any response of substantial or very great extent as being a major problem.

According to the officials, because the medical school curriculum is quite full, there is limited time to add cost containment as a new instructional element. This problem was also mentioned as a barrier at several of the schools we visited. The same four factors were identified by residency program officials as the most significant barriers to cost-containment programs, although the order of selection was somewhat different (see app. II).

Officials at one medical school we visited said that the lack of a proven model program was a major barrier to establishing cost-containment training. The officials said that all programs developed to date are different and they have not been closely evaluated to identify the most effective approach to teaching cost containment.

AAMC officials said that the nature of medical education presents serious problems as to when, where, and how cost-containment training can be most effectively included in the curriculum. The officials pointed out that medical schools emphasize the attitudinal aspects of medicine, as well as technical education, while the residency programs are highly behaviorally oriented. This situation is compounded by the fact that medical schools and residency programs are organized differently and provide, within general standards, unique medical educations. According to the AAMC officials, strategies and approaches to cost-containment training for one program may not work in another. The officials stated, therefore, that it may not be practicable to develop a cost-containment training model that could be used by all medical schools and/or residency programs. At best, some general approach could be developed--one that would have sufficient flexibility to apply to a wide variety of medical educational programs.

In response to our questionnaire, officials of CME courses that include cost-containment training cited three barriers to the development of cost-containment training programs. Twenty-six percent of the respondents cited the lack of training material, 25 percent cited a lack of financial resources, and 23 percent cited lack of enrollee interest (see app. III).

POTENTIAL APPROACHES TO PROMOTE COST-CONTAINMENT TRAINING

In addressing the wide variation in curriculum content and emphasis we found through our questionnaire survey (see ch. 3), officials of three organizations closely associated with physician education--AAMC, AMA, and the National Board of Medical Examiners--generally agreed that no one preferred way to teach cost-containment training has been developed and implemented. However, they stated their belief that, to be most effective, cost-containment training must be integrated into teaching of medical practice. Although separate courses discussing broad outlines and general principles of medical economics or cost containment may be useful, the officials said that training must emphasize cost effectiveness in decisions regarding medical practice and give students methods and techniques for making such decisions.

According to the officials, physicians' practice patterns are formed during the clinical sciences phase of medical school and during residency. Accordingly, the officials said that the most effective cost-containment training would be provided at the bedside by clinical and resident faculty. Such training should emphasize techniques and methods for managing patient care in the most cost-efficient, medically effective manner. Traditionally, medical educators have given little emphasis to cost as a factor in medical practice. The officials agreed that an effective cost-containment education strategy must begin by increasing the clinical faculty's sensitivity to the cost of medical practice. In turn, faculty members would train medical students and residents in the most cost-effective techniques and methods for providing care. The officials cautioned, however, that such changes will take a long time to effect and that their results could be diminished by various financial disincentives in the current health care system.

We discussed two basic approaches to increase the sensitivity of medical school faculty members to the need for additional emphasis on cost-containment training. The first approach could begin with a national conference for faculty members to emphasize the need for such training. This conference could be followed by regional workshops and seminars which emphasize specific methods and techniques of instructing medical students and residents on providing more cost-effective care.

The second approach could involve incorporating cost containment as an element on licensing examinations, such as the National Board of Medical Examiners' medical examination. Proponents of this approach believe that student feedback on the content of the examination would emphasize the need for medical school faculty to devote greater attention to the teaching of cost-effective medical care.

We discussed the examination approach with National Board officials. They told us that the current examination does not directly address cost containment, although there are questions related to general medical economics. In addition, Part III of the examination has questions that require examinees to consider less costly procedures before considering more costly ones. Examinees may not be aware, however, that cost effectiveness is a factor being graded.

FEDERAL ROLE IN COST-CONTAINMENT TRAINING

Traditionally the Federal Government has not become directly involved in developing curricula for medical education. Accordingly, the Federal role in supporting the development and implementation of cost-containment training has been limited. According to officials in the HHS Bureau of Health Professions, the Department has provided small grants for (1) developing a seminar related to the Professional Standards Review Organization (PSRO) program and (2) preparing a textbook to be used in cost-containment training.

According to the HHS officials, $35,000 was provided to the American Medical Student Association in 1977 for developing materials and case studies on the PSRO program. The information developed pertaining to the physician's role in cost containment was presented to a conference of medical students.

In 1978, HHS awarded a $168,000 grant to AAMC for developing a textbook on the quality of medical care and cost containment. Initially, AAMC intended to develop a textbook on medical care quality alone. However, with the emergence of cost containment as a major issue, the effort was revised to incorporate cost-effective medical care. According to an AAMC official, the textbook is scheduled for publication in the spring of 1982.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Because physicians play a major role in determining the ultimate size of the Nation's health care bill, they should be keenly aware of that role and be given the necessary training to enable them to provide health care in the most cost-effective manner.

Physicians' knowledge of cost-containment principles has been demonstrated to be an important element in the Nation's efforts to control health care costs. Because cost-containment training has only recently emerged as an element in the medical education process, its potential for cost control has not been fully demonstrated by studies of physicians' practice behaviors following training. However, its importance as a first step in cost-control efforts has been recognized by medical educators and professional groups, who have expressed a willingness to promote it in the medical education process.

Medical schools and residency training programs have led the way in developing programs to increase physician sensitivity to the cost of health care and to train their students in methods and techniques for providing cost-effective care. These cost-containment efforts, however, vary widely in approach, content, and emphasis and have resulted in many students' dissatisfaction with the limited time devoted to the subject. The variations in time, content, and emphasis devoted to cost-containment are largely due to the fact that health care cost containment is an emerging issue for which no one best teaching and training approach has been developed.

Increasing emphasis on cost containment in medical schools and residency training programs will not be easy. According to medical school administrators and residency program directors, curricula have little room to add topics not directly related to clinical medicine. This difficulty can be partly overcome by thoroughly integrating cost-containment instruction into the clinical phases of medical education, when students are developing their practice patterns. According to several medical educational and professional groups, such an integration would likely have the most influence on the medical practice patterns of emerging physicians.

The continued development of cost-containment training programs hinges on the commitment of medical school faculties. The ultimate success or failure of these programs depends largely on faculty members' sensitivity to the need for such training, their willingness to develop strategies and approaches to providing the training, and their commitment to ensuring that the training is effectively carried out.

A possible means to increase faculty and student sensitivity to the importance of cost-containment training could be including questions having cost-containment elements in medical examinations required to be taken by medical students and physicians. We recognize that such an approach could be difficult in view of the wide range of material which must be covered in these examinations. However, we believe that such an action would send a clear signal to both faculty and students regarding the importance of the cost-containment issue in the current health care environment.

Because medical educational and professional groups have begun to incorporate cost-containment training into medical school and residency program curricula, we believe that an appropriate role for the Federal Government at this time is to monitor the profession's efforts directed to increasing the emphasis on such training. We believe also that, when the opportunity arises, the Governnment, through HHS, should, in carefully selected instances, provide financial support to efforts directed at further developing and refining methods and strategies for incorporating cost-containment training into medical school and residency training programs. While the amount of financial support does not have to be large, it could provide an important impetus to further expansion of physician cost-containment training.

RECOMMENDATIONS

To provide impetus to the continued development and expansion of physician cost-containment training as a strategy in limiting increases in the Nation's health care bill, the Secretary of HHS should monitor the medical profession's progress as it incorporates such training into educational curricula and, on a carefully selected basis, provide funding for seminars and conferences at which medical school faculty and residency program dirctors can develop and share strategies, approaches, and methods for teaching cost-effective medicine.

GAO QUESTIONNAIRE MAILED TO DEANS OF U.S. MEDICAL SCHOOLS

In late 1980, we mailed questionnaires (see pp. 41 to 60) to the deans of all 126 medical schools in the United States and its territories. The questionnaire was designed to:

--Determine the number of U.S. medical schools that provide cost-containment training to medical students.

--Determine the numbers of students who received the training.

--Identify the scope and content of the training; i.e., when the training is offered and what techniques are taught.

--Identify the effects of the training; e.g., dollar savings, increased physician productivity.

--Identify the resources required to provide the training.

--Identify problems that medical schools encountered in offering the training.

METHODOLOGY

The universe of 126 U.S. medical schools was published in the "Journal of the American Medical Association," March 7, 1980, and in the 1980-81 "Directory of Residency Training Programs," published by AMA in 1980. The list of medical schools in the United States is on pages 108 to 113. After three followups to nonresponding deans, we received 117 responses, representing 93 percent of all U.S. medical schools.

SUMMARY OF RESPONSES TO SELECTED QUESTIONS

The responses to the questionnaire are shown below. Because some deans did not answer some questions, the number of responses to specific questions varies from 117.

Question 3: Does your medical school currently provide cost-containment training to your undergraduate medical students?

Answer:

	Schools	
	Number	Percentage
Yes	90	76.9
No, but we are planning to do so	8	6.8
No, and we are not planning to do so at this time	19	16.2

Question 2: How many medical students graduated from this medical school in each of the following years?

Question 4: Of the medical students you listed in question 2, how many received cost-containment training?

Answer:

	School year		
	1978-79	1979-80	1980-81
Number who graduated	13,983	12,841	14,675
Number of graduates who received cost-containment training	8,409	9,197	9,930
Percentage who received cost-containment training	60.1	71.6	67.7

Question 8: To what extent did each of the following influence your school to begin cost-containment training?

Answer:

	Medical schools indicating:			
	Little or no to moderate extent		Substantial to very great extent	
	Number	Percentage	Number	Percentage
Urging of medical school administration	46	58.2	33	41.8
Interest of one or a few medical school staff members	24	30.0	56	70.0
Urging of affiliated hospital administration	66	86.8	10	13.2
Urging of Federal Government	69	92.0	6	8.0
Availability of Federal funds	71	95.9	3	4.1
Urging of State government	71	94.7	4	5.3
Availability of State awards	75	98.7	1	1.3
Potential or existing legislation or regulations	69	90.8	7	9.2
Urging of third-party payers	70	93.3	5	6.7
Other	6	25.0	18	75.0

Question 11: How much emphasis is placed on each of the following subject areas in your school's cost-containment program?

Answer:

	Medical schools indicating:			
	Little or no to moderate emphasis		Substantial to great emphasis	
	Number	Percentage	Number	Percentage
1. Historical data on increases in medical care costs	55	67.1	27	32.9
2. Factors that have contributed to increasing costs	38	46.3	44	53.7
3. Role of third-party payers in contributing to medical care cost increases	53	66.2	27	33.8
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)	64	79.0	17	21.0
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities	61	75.3	20	24.7
6. Physicians' role in generating costs	30	36.6	52	63.4
7. Potential of physicians for controlling cost increases	26	32.9	53	67.1
8. Role and responsibility of physicians for cost containment	23	28.7	57	71.3
9. Techniques for establishing reasonable physician fees	69	89.6	8	10.4
10. Criteria for selecting the most appropriate location for care (e.g., hospital, physician's office, outpatient clinic, extend care facility)	53	67.9	25	32.1
11. Techniques and cost-saving potential of preadmission hospital testing	66	83.5	13	16.5
12. Techniques for analyzing and assessing the needs and cost-effectiveness of hospital ancillary services	60	75.9	19	24.1
13. Benefits/costs of diagnostic tests	34	41.5	48	58.5
14. Familiarization with the costs of diagnostic tests	34	41.5	48	58.5
15. Post-diagnostic/treatment assessment of patient care costs	54	68.4	25	31.6
16. Appropriate use and costs for X-rays	40	49.4	41	50.6
17. Benefits/costs of drugs	47	58.0	34	42.0
18. Relationship of quality and costs	46	57.5	34	42.5
19. Efficient use of paraprofessionals and other health workers	65	83.3	13	16.7
20. Length-of-stay planning	63	79.7	16	20.3
21. Techniques for medical audit and utilization review	64	81.0	15	19.0
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care)	63	81.8	14	18.2
23. Preventive medicine as a way to contain health care costs	46	57.5	34	42.5

Question 18: Listed below are a number of problems that could have been encountered in implementing and/or operating the cost-containment program. Please indicate to what extent each was a problem for your school's program.

Answer:

	Medical schools that offer cost-containment training			
	Little or no to moderate extent		Substantial to very great extent	
	Number	Percentage	Number	Percentage
1. Lack of financial resources	54	75.0	18	25.0
2. Lack of time in curriculum	41	53.9	35	46.1
3. Lack of readily available training material	50	69.4	22	30.6
4. Lack of trained instructors	52	68.4	24	31.6
5. Faculty resistance	72	96.0	3	4.0
6. Student resistance	71	95.9	3	4.1
7. Administration resistance	71	100.0	0	0
8. Belief that cost-containment program would have no effect	70	97.2	2	2.8
9. Other	2	33.3	4	66.7

Question 22: Listed below are a number of problems that could prevent the establishment of a cost-containment education/training program. Please indicate to what extent each was a factor in your school's decision not to implement a program.

Answer:

	Medical schools that plan to offer cost-containment training			
	Little or no to moderate extent		Substantial to very great extent	
	Number	Percentage	Number	Percentage
1. Lack of financial resources	7	53.8	6	46.2
2. Lack of time in curriculum	4	26.7	11	73.3
3. Lack of readily available training material	7	50.0	7	50.0
4. Lack of trained instructors	10	66.7	5	33.3
5. Faculty resistance	13	100.0	0	0
6. Student resistance	13	100.0	0	0
7. Administration resistance	14	100.0	0	0
8. Belief that cost-containment program would have no effect	11	73.3	4	26.7
9. Other	0	0	1	100.0

Schools whose cost-containment programs consisted of the following types of activities (refers to question 7(2)).

	Number of schools	Percentage
Course	18	20
Clerkship/rotation	10	11
Special feature (e.g., seminar or workshop)	5	6
Course and clerkship/rotation	30	33
Course and special feature	8	9
Clerkship/rotation and special feature	3	3
Course, clerkship/rotation, and special feature	16	18
Total	90	100

Number of schools (of 90) that used the following instructional methods (refers to question 7(4)).

	Number
Classroom lecture	78
Discussion group	76
Ward rounds	50
Grand rounds	36
Clinical-pathologic conference	20
Management conference	30
In-patient chart audit	41
Ambulatory patient chart audit	35
Individual or group field exercise	24
Special medical care evaluation/ cost studies	21
Case studies	50
Programed instruction/self-study	17
Other	19

Question 7(5): During which year of the student training is this activity taken?

Answer:

	Number of schools (note a)
First year	36
Second year	64
Third year	67
Fourth year	60
Other	11

a/Some of the 90 schools offer cost-containment training in more than 1 year.

Number of schools with required or elective activities (refers to question 7(6)).

	Number of schools
Required	79
Elective	34
Required for some students and elective for others	12

Schools' estimate of the number of contact hours of cost-containment training offered (refers to question 7(7)).

Range of hours	Number of schools	Percentage
1- 10	28	45.9
11- 20	12	19.7
21- 30	5	8.2
31- 50	5	8.2
51- 70	6	9.8
71-100	0	0
101-200	2	3.3
201-300	3	4.9
Total	a/61	100.0

a/One school said it could estimate contact hours, but did not provide an estimate. The remaining 28 schools did not estimate the number of contact hours.

Number of schools (of 90) that have activities they classify as a permanent part of the medical curriculum or a developmental/ research endeavor (refers to question 7(12)).

	Number of schools
Permanent part of medical curriculum	82
Developmental/research endeavor	26

U.S. GENERAL ACCOUNTING OFFICE

SURVEY OF MEDICAL SCHOOL COST CONTAINMENT EDUCATION PROGRAMS

ID (1-3)

Card (4-5)

INTRODUCTION

The purpose of this questionnaire is to determine what medical schools have done about offering cost containment education to undergraduate medical students. By cost containment education we mean education/training in the techniques for providing quality medical care at the lowest possible cost. We are interested in current, discontinued and planned education programs. The questionnaire seeks to obtain the type and extent of these programs and the effects of the training.

The questionnaire is arranged in a way which instructs you to skip questions which are not relevant to your school. We realize that to fully answer this questionnaire some schools will have to involve several individuals. We ask that you identify who we can contact for further information.

1. Please provide the name, title and telephone number of the person we should contact if further information is required.

____
(NAME)

____
(TITLE)

____
(AREA CODE) (TELEPHONE NUMBER)

TRAINING ACTIVITIES

A cost containment education program can be carried out by using training activities such as

(1) courses,
(2) clerkships/rotations and
(3) special features (seminars, symposia, workshops, lecture series, etc.)

These activities may be designed solely for the purpose of cost containment training (e.g., a course in cost containment techniques) or may be devoted only in part to cost containment training (e.g., a single session devoted to cost containment in a course or series of management conferences). The content of the activities may be planned (e.g., following a syllabus in a course) or not planned (e.g., discussions during ward rounds).

INSTRUCTIONAL METHODS

The training activities can be conducted by using a variety of instructional methods which are listed below. In answering this questionnaire you will need to consider these instructional methods.

1. Classroom lecture
2. Discussion group
3. Ward rounds
4. Grand rounds
5. Clinical - pathologic conference
6. Management conference
7. In-patient chart audit
8. Ambulatory patient chart audit
9. Individual or group field exercise
10. Special medical care evaluation/cost studies
11. Case studies
12. Programmed instruction/self study

2. How many medical students graduated from this school in each of the following school years?

School Year	Number of graduates	
1978-79		(6-8)
1979-80		(9-11)
1980-81	(expected)	(12-14)

3. Does your medical school currently provide cost containment training to your undergraduate medical students? (Check one) (15)

   1. ☐ Yes (GO TO QUESTION 4)

   2. ☐ No, but we are planning to do so. (GO TO PAGE 19, QUESTION 23)

   3. ☐ No, and we are not planning to do so at this time. (GO TO PAGE 18, QUESTION 22)

4. Of the medical students you listed in question 2, how many received cost containment training?

Year	Number who received cost containment training	
1978-79		(16-18)
1979-80		(19-21)
1980-81	(expected)	(22-24)

5. Which of the following describes the overall structure of the cost containment program you currently have? (Check one.) (25)

   1. ☐ The school has a structured identifiable cost containment program where the specific cost containment training activities are planned in advance

   2. ☐ The school has a cost containment program which is not structured and which basically relies on the use of cost containment training activities as the need or situation arises.

6. Consider the various training activities (e.g., courses, segments of courses, clerkships/rotations and special features) which are used at your school to educate medical students about containing medical care costs.

   How many different training activities do you currently have in your cost containment program?

   ____________ activities (26-27)

7. For each activity you can identify please supply the information requested on one of the following pages (labeled A t E).

   If you have more than 5 such activities please reproduce pages 13 and 14 as many times as you need to, fill out the pages, label them F, G, H..., and attach them to the questionnaire.

7. **A**

(1) Title of activity (if any):________________

____

____

____

(2) What type of activity is this? (Check one) (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ________________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ________________

____

(6) Is this activity required or elective? (48) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

   ____________ hours

2. ☐ No, the training is too well integrated with other activities (53)
3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)
4. ☐ No (specify) ____________

   ____________ (55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee
2. ☐ The school's curriculum committee
3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ____________

   ____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

7. **B**

(1) Title of activity (if any):________________

____

____

____

(2) What type of activity is this? (Check one) *2 (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (48) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

   ______________ hours

2. ☐ No, the training is too well integrated with other activities (53)
3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)
4. ☐ No (specify) ______________________

   ______________________________(55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee
2. ☐ The school's curriculum committee
3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ________________

   ____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

7. **C**

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) *3 (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (48) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

   ______________ hours

2. ☐ No, the training is too well integrated with other activities (53)
3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)
4. ☐ No (specify) ______________________

   ______________________________(55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee
2. ☐ The school's curriculum committee
3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ________________

   ____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

7. **D**

(1) Title of activity (if any):____________________

____

____

____

(2) What type of activity is this? (Check one) *4 (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (48)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

_______________ hours

2. ☐ No, the training is too well integrated with other activities (53)

3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)

4. ☐ No (specify) _______________________

_______________________________(55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)

2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee

2. ☐ The school's curriculum committee

3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes

2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

3. ☐ Terminated

4. ☐ Other (specify) ___________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

7. **E**

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) *5 (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (48)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

_____________ hours

2. ☐ No, the training is too well integrated with other activities (53)

3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)

4. ☐ No (specify) _________________

_________________________(55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)

2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee

2. ☐ The school's curriculum committee

3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes

2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

3. ☐ Terminated

4. ☐ Other (specify) _________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

7. ☐

(1) Title of activity (if any): ______________

____

____

____

(2) What type of activity is this? (Check one) *6 (28)

1. ☐ Course
2. ☐ Clerkship/rotation
3. ☐ Special feature (seminar, symposia, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ______________

____

(5) During which year of the student's training is this activity taken? (Check all that apply) (43-47)

1. ☐ 1st
2. ☐ 2nd
3. ☐ 3rd
4. ☐ 4th
5. ☐ Other (specify) ______________

____

(6) Is this activity required or elective? (48) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each medical student receives in this activity? (Check all that apply)

1. ☐ Yes (Please indicate) (49-52)

____________ hours

2. ☐ No, the training is too well integrated with other activities (53)

3. ☐ No, contact time is dependent upon interests and available time of faculty or students (54)

4. ☐ No (specify) ____________________

______________________________(55)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (56)

1. ☐ Yes (Please send us a copy with your return)

2. ☐ No

(9) Has this activity been approved by a department's or the school's curriculum committee? (Check all that apply) (57-59)

1. ☐ A department's curriculum committee

2. ☐ The school's curriculum committee

3. ☐ Neither

(10) How many students who graduated in school years 1978-79 and 1979-80 have participated in this activity and how many students who will graduate in school year 1980-81 do you estimate will have participated in this activity?

School Year	Number of graduates who participated	
1978-79		(60-62)
1979-80		(63-65)
1980-81	(expected)	(66-68)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (69)

1. ☐ Yes

2. ☐ No

(12) Is this activity currently classified as a permanent part of the medical curriculum or a developmental/research endeavor? (Check one) (70)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (71)

1. ☐ Permanent part of medical curriculum

2. ☐ Developmental/research endeavor

3. ☐ Terminated

4. ☐ Other (specify) ________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (72)

8. To what extent did each of the following influence you to begin cost containment training? (Check one for each item.)

	Little or no extent 1	Some extent 2	Moderate extent 3	Substantial extent 4	Very great extent 5	*7
(1) Urging of medical school administration						(6)
(2) Interest of one or a few medical school staff members						(7)
(3) Urging of affiliated hospital administration						(8)
(4) Urging of Federal government						(9)
(5) Availability of Federal funds						(10)
(6) Urging of state government						(11)
(7) Availability of state awards						(12)
(8) Potential or existing legislation or regulations						(13)
(9) Urging of third party payers						(14)
(10) Other (specify) ____________________						(15)

---

9. In what year did the medical school begin teaching cost containment? (16-17)

Year 19________

10. Briefly state the major objectives of your cost containment training program(s)? (18)

11. How much emphasis is placed on each of the following subject areas in your cost containment program? (Check one box for each area.)

	Great emphasis 1	Substantial emphasis 2	Moderate emphasis 3	Some emphasis 4	Little or no emphasis 5	
1. Historical data on increases in medical care costs						(19)
2. Factors that have contributed to increasing costs						(20)
3. Role of third party payers in contributing to medical care cost increases						(21)
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)						(22)
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities						(23)
6. Physicians role in generating costs						(24)
7. Potential of physicians for controlling cost increases						(25)
8. Role and responsibility of physicians for cost containment						(26)
9. Techniques for establishing reasonable physician fees						(27)
10. Criteria for selecting the most appropriate locations for care (e.g., hospital, physician's office, out-patient clinic, extended care facility)						(28)
11. Techniques and cost saving potential of preadmission hospital testing						(29)
12. Techniques for analyzing and assessing the needs and cost-effectiveness of hospital ancillary services						(30)
13. Benefits/costs of diagnostic tests						(31)
14. Familiarization with the costs of diagnostic tests						(32)
15. Post diagnostic/treatment assessment of patient care costs						(33)
16. Appropriate use and costs for x-rays						(34)
17. Benefits/costs of drugs						(35)
18. Relationship of quality and costs						(36)
19. Efficient use of paraprofessionals and other health workers						(37)
20. Length of stay planning						(38)
21. Techniques for medical audit and utilization review						(39)
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care, etc.)						(40)
23. Preventive medicine as a way to contain health care costs						(41)

12. For each academic year listed below please indicate the amount of funding received from each funding source to run your cost containment program. Estimate if necessary. Insert "0" if no funds were received from that source.

	Academic Year					
Money for your cost containment program from. . .	1978-79 (Actual)		1979-80 (Actual)		1980-81 (Budgeted)	
1. School's operating budget		(42-47)		(48-53)		(54-59)
2. Federal government		(60-65)		(66-71)		(72-77) *8
3. State government		(6-11)		(12-17)		(18-23)
4. Special grant grantor: ____________		(24-29)		(30-35)		(36-41)
5. Other grants grantor: ____________		(42-47)		(48-53)		(54-59)
6. grantor: ____________		(60-65)		(66-71)		(72-77) *9
7. grantor: ____________		(6-11)		(12-17)		(18-23)

13. Has the effectiveness of your cost containment program been evaluated? (Check one) (24)

1. ☐ Yes, an evaluation has been completed (GO TO QUESTION 14)
2. ☐ Yes, an evaluation is in progress (GO TO QUESTION 15)
3. ☐ No evaluation has been made or is in progress (GO TO QUESTION 17)

14. Has this evaluation been documented? (Check one) (25)

1. ☐ Yes (PLEASE SEND US A COPY)
2. ☐ No

15. Which of the activities indicated in question 7 were/are being evaluated? (Check all that apply) (26-31)

1. ☐ A
2. ☐ B
3. ☐ C
4. ☐ D
5. ☐ E
6. ☐ Other(s) (please specify) ____________

____

16. Which of the following measures have been used in the evaluation? (Check all that apply) (32-39)

1. ☐ Quality of care
2. ☐ Physician productivity
3. ☐ Length of stay
4. ☐ Frequency of laboratory services
5. ☐ Cost per admission
6. ☐ Cost as measured by other means (specify)

____

____

7. ☐ Student's awareness or concern about medical care costs
8. ☐ Other (specify) ____________

____

17. If you would like to make any comments about evaluating your cost containment program, please do so here. (40)

18. Listed below are a number of problems that could have been encountered in implementing and/or operating the cost containment program. Please indicate to what extent each was a problem for your program.

(Check one box for each problem)

Problems	Little or no extent 1	Some extent 2	Moderate extent 3	Substantial extent 4	Very great extent 5	
1. Lack of financial resources						(41)
2. Lack of time in curriculum						(42)
3. Lack of readily available training material						(43)
4. Lack of trained instructors						(44)
5. Faculty resistance						(45)
6. Student resistance						(46)
7. Administration resistance						(47)
8. Belief that cost containment program would have no effect						(48)
9. Other (specify) ______________						(49)

If you have any documentation which reflects this we would appreciate a copy.

19. Are there any changes planned for your cost containment program? (Check one) (50)

1. ☐ Yes (GO TO QUESTION 20)

2. ☐ No (GO TO QUESTION 35)

20. If you have specific changes planned please indicate in which of the following areas such changes will take place. (Check all that apply) (51-53)

1. ☐ Discontinue the program

2. ☐ Exclude some features or activities now in the program. Please list. Refer to activities listed in question 7.

3. ☐ Add new features or activities to the program. Please list.

21. What will be the effect of the above changes on contact hours? (Check one) (54-57)

1. ☐ Increase total cost containment training by ______ contact hours

2. ☐ Decrease total cost containment training by _____ contact hours

3. ☐ Not change the total number of contact hours

NOW GO TO QUESTION 35

22. Listed below are a number of problems that could prevent the establishment of a cost containment education/training program. Please indicate to what extent each was a problem for you.

(Check one box for each problem)

Problems	Little or no extent 1	Some extent 2	Moderate extent 3	Substantial extent 4	Very great extent 5	
1. Lack of financial resources						(58)
2. Lack of time in curriculum						(59)
3. Lack of readily available training material						(60)
4. Lack of trained instructors						(61)
5. Faculty resistance						(62)
6. Student resistance						(63)
7. Administration resistance						(64)
8. Belief that cost containment program would have no effect						(65)
9. Other (specify) ______________						(66)

If you have any documentation which reflects this we would appreciate a copy.

If you do not currently have a program and are not planning one at this time GO TO QUESTION 26.

PROGRAMS IN PLANNING STAGE (Questions 23-25)

23. When will this program be implemented? (67-70)

_____________ 19_________
(month) (year)

24. Briefly state the major objectives of your cost containment training programs. (71)

25. Consider both the required and elective cost containment education to be provided to your undergraduate medical school students. Approximately how many contact hours of each will be provided during the first 2 years and how many during the last 2 years of the student's education? (*10)

	Number of Required Contact Hours		Number Elective Contact Hours Available	
First 2 years		(6-8)		(9-11)
Last 2 years		(12-14)		(15-17)

NO CURRENT PROGRAM

26. Did your school ever offer cost containment training to its medical students and then discontinue it? (Check one) (18)

1. ☐ Yes (GO TO QUESTION 27)
2. ☐ No (GO TO QUESTION 35)

DISCONTINUED PROGRAMS (Questions 27-34)

27. When did this program originally begin? (19-22)

_____________ _____________
(month) (year)

28. When was this program discontinued? (23-26)

_____________ _____________
(month) (year)

29. How many students who graduated in school years 1978-79 and 1979-80 have participated in this discontinued cost containment program? (If the program was discontinued before any of these graduates could have participated insert N/A).

School Year	Number of graduates who participated	
1978-79		(27-29)
1979-80		(30-32)

30. Listed below are a number of problems which could have contributed to your discontinuing your cost containment program. Please indicate to what extent each did contribute.

(Check one box for each problem)

Problems	Little or no extent 1	Some extent 2	Moderate extent 3	Substantial extent 4	Very great extent 5	
1. Lack of financial resources						(33)
2. Lack of time in curriculum						(34)
3. Lack of readily available training material						(35)
4. Lack of trained instructors						(36)
5. Faculty resistance						(37)
6. Student resistance						(38)
7. Administration resistance						(39)
8. Belief that cost containment program has no effect						(40)
9. Other (specify) ____________						(41)

If you have any documentation which reflect this we would appreciate a copy.

31. Has the effectiveness of this discontinued program been evaluated? (Check one) (42)

1. ☐ Yes, an evaluation has been completed (GO TO QUESTION 32)
2. ☐ Yes, an evaluation is in progress (GO TO QUESTION 33)
3. ☐ No evaluation has been made or is in progress (GO TO QUESTION 34)

32. Has this evaluation been documented? (Check one) (43)

1. ☐ Yes (PLEASE SEND US A COPY)
2. ☐ No

33. Which of the following measures have been used in the evaluation? (Check all that apply) (44-51)

1. ☐ Quality of care
2. ☐ Physician productivity
3. ☐ Length of stay
4. ☐ Frequency of laboratory services
5. ☐ Cost per admission
6. ☐ Cost as measured by other means (specify)

____

____

7. ☐ Student's awareness or concern about medical care costs
8. ☐ Other (specify) ______________

____

34. If you would like to make any comments about evaluating your cost containment program, please do so here. (52)

35. Would you like to receive a copy of our final report on this study? (Check one.) (53)

1. ☐ Yes
2. ☐ No

36. If you have any additional comments you would like to make, please do so here. (54)

GAO QUESTIONNAIRE MAILED TO DIRECTORS

OF U.S. RESIDENCY TRAINING PROGRAMS

In late 1980, we mailed questionnaires (see pp. 73 to 92) to a statistical sample of directors of U.S. residency training programs. The questionnaire was designed to:

--Determine the number of residency training programs that provide cost-containment training to residents.

--Determine the number of residents who received the training.

--Identify the scope and content of the training; i.e., when the training is offered and what techniques are taught.

--Identify the effects of the training; e.g., dollar savings, increased physician productivity.

--Identify the resources required to provide the training.

--Identify problems that medical schools encountered in offering the training.

METHODOLOGY

The universe of residency training programs was determined using the "1980-1981 Directory of Residency Training Programs" accredited by the Accreditation Council for Graduate Medical Education 1/ published by AMA, and the "1980-1981 Directory of Residency Training Programs in Emergency Medicine," which listed all approved emergency medicine residency training programs for academic year 1980-81. The originial universe and sample size were:

1/In 1981, the name was changed from the Liaison Committee on Graduate Medical Education.

Original universe and sample size	Universe	Sample size
Residency training programs:		
Accredited by the Accreditation Council for Graduate Medical Education (ACGME)	a/4,634	400
Approved by the Liaison Residency Endorsement Committee (note b)	c/ 46	4
Total	4,680	404

a/This does not include flexible programs because such programs are sponsored by at least two accredited residency programs.

b/These programs will be eligible for accreditation by ACGME upon application to the Residency Review Committee in Emergency Medicine, which was approved in May 1981, according to the Executive Director, American Board of Emergency Medicines.

c/This does not include one approved emergency medicine residency training program in Canada.

The sample size was selected to result in sampling errors of no more than ± 5 percent at the 95-percent confidence level. The sample was selected using generally accepted statistical techniques.

After three followups, we received 348 responses, an 86.1-percent response rate. Ten responses (2.0 percent) were excluded because the residency program director refused to provide the requested information. This resulted in a net response of 338 for an 83.7-percent response rate and an adjusted universe of 3,915. 1/ Our results are projections of the adjusted universe based on the sample results.

1/The sampling error of this estimate at the 95-percent confidence level is 161. That is, we are 95-percent confident that the actual number of responses from the original universe of 4,680 would range from 3,754 to 4,076.

SUMMARY OF RESPONSES TO SELECTED QUESTIONS

The projections for specific questions are shown below.

Question 3: Does your residency program currently provide cost-containment training to your residents?

Answer:

	Projected residency programs	
	Number	Sampling error
Yes	2,154	199
No, but we are planning to do so	324	110
No, and we are not planning to do so at this time	1,344	190

Question 2: How many residents in this residency program became board eligible or terminated their training in each of the following years?

Question 4: Of the residents you listed in question 2, how many received cost-costainment training?

Answer:

	Year					
	1978-79		1979-80		1980-81	
	Estimate	Sampling error	Estimate	Sampling error	Estimate	Sampling error
Number who became board eligible or terminated their training	15,637	1,606	16,529	1,670	16,992	1,791
Number who received cost-containment training	8,896	1,571	9,892	1,658	10,367	1,723
Percentage who received cost-containment training	56.9	11.5	59.9	11.1	61.1	11.6

Question 5: Which of the following describes the overall structure of your cost-containment training program?

Answer:

	Projected residency programs	
	Number	Sampling error
The residency program has a structured identifiable cost-containment program where the specific cost-containment training activities are planned in advance	208	90
The residency program has a cost-containment program which is not structured and which basically relies on the use of cost-containment training activities as the need or situation arises	1,888	200

Question 8: To what extent did each of the following influence your program to begin cost-containment training?

Answer:

	Projected residency programs				
	No. who would have responded to this question	Little or no to moderate extent		Substantial to very great extent	
		Percentage	Error	Percentage	Error
1. Urging of hospital administration	1,830	82.278	5.709	17.722	5.709
2. Interest of one or a few residency program staff members	1,865	53.416	7.388	46.584	7.388
3. Urging of affiliated medical school administration	1,784	94.805	3.361	5.195	3.361
4. Urging of Federal Government	1,772	92.157	4.085	7.843	4.085
5. Availability of Federal funds	1,795	87.097	5.061	12.903	5.061
6. Urging of State government	1,772	93.464	3.756	6.536	3.756
7. Availability of State awards	1,749	97.351	2.456	2.649	2.459
8. Potential or existing legislation or regulations	1,784	88.312	4.866	11.688	4.866
9. Urging of third-party payers	1,703	87.075	5.202	12.925	5.202
10. Other	753	6.154	5.628	93.846	5.628

Question 11: How much emphasis is placed on each of the following subject areas in your residency program' cost-containment training?

	Projected residency programs				
		Little or no to moderate emphasis		Substantial to great emphasis	
	No. who would have responded	Percentage	Sampling error	Percentage	Sampling error
1. Historical data on increases in medical care cost	3,359	77.914	6.231	22.086	6.231
2. Factors that have contributed to increasing costs	3,081	57.396	7.270	42.604	7.270
3. Role of third-party payers in contributing to medical care cost increases	3,208	68.902	6.922	31.098	6.922
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)	3,220	68.485	6.926	31.515	6.926
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities	2,826	46.108	7.356	53.892	7.356
6. Physicians' role in generating costs	2,583	31.176	6.750	68.824	6.750
7. Potential of physicians for controlling cost increases	2,537	28.824	6.596	71.176	6.596
8. Role and responsibility of physicians for cost containment	2,456	25.444	6.356	74.556	6.356
9. Techniques for establishing reasonable physician fees	3,266	73.006	6.663	26.994	6.663
10. Criteria for selecting the most appropriate locations for care (e.g., hospital, physician's office, out-patient clinic, extended care facility)	2,977	53.892	7.367	46.108	7.367
11. Techniques and cost-saving potential of preadmission hospital testing	3,162	61.538	7.155	38.462	7.155
12. Techniques for analyzing and assessing the needs and cost effectiveness of hospital ancillary services	3,185	68.712	6.955	31.288	6.955

	Projected residency programs				
		Little or no to moderate emphasis		Substantial to great emphasis	
	No. who would have responded	Percentage	Sampling error	Percentage	Sampling error
13. Benefits/cost of diagnostic tests	2,652	33.14	6.823	66.860	6.823
14. Familiarization with the costs of diagnostic tests	2,722	39.881	7.194	60.119	7.194
15. Post-diagnostic/treatment assessment of patient care cost	3,174	69.136	6.951	30.864	6.951
16. Appropriate use and costs for X-rays	2,861	46.154	7.312	53.846	7.312
17. Benefits/costs of drugs	2,977	55.758	7.388	44.242	7.388
18. Relationship of quality and costs	2,780	42.857	7.275	57.143	7.275
19. Efficient use of paraprofessionals and other health workers	3,127	64.634	7.145	35.366	7.145
20. Length of stay planning	2,664	42.857	7.433	57.143	7.433
21. Techniques for medical audit and utilization review	3,069	62.577	7.251	37.423	7.251
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care)	2,896	53.374	7.463	46.626	7.463
23. Preventive medicine as a way to contain health care cost	3,081	64.198	7.208	35.802	7.208

Question 18: Listed below are a number of problems that could have been encountered in implementing and/or operating the cost-containment program. Please indicate to what extent each was a problem for your residency program.

Answer:

	Projected Residency Programs That Offer Cost-Containment Training				
		Little or no to moderate emphasis		Substantial to great emphasis	
	No. who would have responded	Percentage	Sampling error	Percentage	Sampling error
1. Lack of financial resources	1,737	78.667	6.287	21.333	6.287
2. Lack of time in residency training program	1,807	76.923	6.340	23.077	6.340
3. Lack of readily available training material	1,795	76.774	6.375	23.226	6.375
4. Lack of trained instructors	1,703	77.070	6.668	22.930	6.668
5. Senior staff resistance	1,772	96.732	2.702	3.268	2.702
6. Resident resistance	1,772	97.386	2.425	2.614	2.425
7. Administration resistance	1,761	98.684	1.737		1.737
8. Belief that cost-containment program has no effect	1,749	95.364	3.216	3.216	3.216
9. Other	46	25.000	46.821	75.000	46.821

Question 22: Listed below are a number of problems that could prevent the establishment of a cost-containment education/training program. Please indicate to what extent each was a problem for you.

Answer:

	Projected Residency Programs That Plan To Offer Cost-Containment Training				
		Little or no to moderate emphasis		Substantial to great emphasis	
	No. who would have responded	Percentage	Sampling error	Percentage	Sampling error
1. Lack of financial resources	1,066	60.870	9.585	39.130	9.585
2. Lack of time in residency training program	1,077	49.462	9.766	50.538	9.766
3. Lack of readily available training material	1,089	34.043	9.206	65.957	9.206
4. Lack of trained instructors	1,124	30.928	8.838	69.072	8.838
5. Senior staff resistance	1,019	96.591	3.645	3.409	3.645
6. Resident resistance	1,019	94.318	4.650	5.682	4.650
7. Administration resistance	1,019	97.727	2.993	2.273	2.993
8. Belief that cost-containment program has no effect	1,042	81.111	7.773	18.889	7.773
9. Other	93	0.000	0.000	100.000	0.000

Residency programs whose cost-containment training consisted of the following types of activities. (Refers to question 7(2))

	Projected residency programs	
	Number	Sampling error
1. Course	35	37
2. Routine clinical training	1,297	188
3. Special feature (e.g., seminar, workshop)	104	64
4. Course and routine clinical training	46	43
5. Course and special feature	475	130
6. Routine clinical training and special features	23	31
7. Course, routine clinical training, and special feature	104	64

Number of residency programs that used the following instructional methods. (Refers to question 7(4)).

		Projected residency programs	
		Number	Sampling error
1.	Classroom lecture	1,344	190
2.	Discussion group	1,320	189
3.	Ward rounds	1,216	185
4.	Grand rounds	741	157
5.	Clinical-pathologic conference	1,019	175
6.	Management conference	718	155
7.	Inpatient chart audit	614	145
8.	Ambulatory patient chart audit	394	120
9.	Individual or group field exercise	324	110
10.	Special medical care evaluation/ cost studies	649	149
11.	Case studies	278	103
12.	Programed instruction/ self-study	429	125
13.	Other	834	164

Question 7(5): During which year of the resident's training is this activity taken?

Answer:

	Projected residency programs	
	Number	Sampling error
1. First year	869	166
2. Second year	1,112	180
3. Third year	266	101
4. Fourth or subsequent year	1,726	198
5. Throughout the residency program	1,865	200
6. Other	359	115

Estimate of residency programs with required or elective activities. (Refers to question 7(6)).

1. Required	1,865	200
2. Elective	116	68
3. Required for some and elective for others	116	68

Estimate of residency programs that have activities they classify as a permanent part of the residency training program or a developmental/research endeavor. (Refers to question 7(12)).

1. Permanent part of residency training program	1,888	200
2. Developmental/research endeavor	139	74

U.S. GENERAL ACCOUNTING OFFICE

SURVEY OF RESIDENCY PROGRAM COST
CONTAINMENT EDUCATION PROGRAMS

ID (1-3)

Card (4-5)

INTRODUCTION

The purpose of this questionnaire is to determine what residency programs have done about offering cost containment education to residents. By cost containment education we mean education/training in the techniques for providing quality medical care at the lowest possible cost. We are interested in current, discontinued and planned education programs. The questionnaire seeks to obtain the type and extent of these programs and the effects of the training.

The information you provide on this form should be limited to the cost containment training which is provided to the residents of the residency program mentioned in the attached label. It is expected that the training received by these residents would be provided (1) on a hospital wide basis where all residents would be able to participate, (2) within the residency program and/or (3) by several residency programs working together to train their residents.

The questionnaire is arranged in a way which instructs you to skip questions which are not relevant to your program. We realize that to fully answer this questionnaire several individuals may have to be involved. We ask that you identify who we can contact for further information.

1. Please provide the name, title and telephone number of the person we should contact if further information is required.

____
(NAME)

____
(TITLE)

____
(AREA CODE) (TELEPHONE NUMBER)

TRAINING ACTIVITIES

A cost containment education program can be carried out by using training activities such as

(1) courses,
(2) routine clinical training (grand rounds, patient management conferences, etc.) and
(3) special features (seminars, symposia, workshops, lecture series, etc.).

These activities may be designed solely for the purpose of cost containment training (e.g., a course in cost containment techniques) or may be devoted only in part to cost containment training (e.g., a single session devoted to cost containment in a course or series of management conferences). The content of the activities may be planned (e.g., following a syllabus in a course) or not planned (e.g., discussions during ward rounds).

INSTRUCTIONAL METHODS

The training activities can be conducted by using a variety of instructional methods which are listed below. In answering this questionnaire you will need to consider these instructional methods.

1. Classroom lecture
2. Discussion group
3. Ward rounds
4. Grand rounds
5. Clinical - pathologic conference
6. Management conference
7. In-patient chart audit
8. Ambulatory patient chart audit
9. Individual or group field exercise
10. Special medical care evaluation/cost studies
11. Case studies
12. Programmed instruction/self study

2. How many residents in this residency program became board eligible or terminated their training in each of the following years?

Year	Number who became board eligible or who terminated training	
1978-79		(6-8)
1979-80		(9-11)
1980-81	(expected)	(12-14)

3. Does your residency program currently provide cost containment training to your residents? (Check one) (15)

1. ☐ Yes (GO TO QUESTION 4)
2. ☐ No, but we are planning to do so (GO TO PAGE 19, QUESTION 23)
3. ☐ No, and we are not planning to do so at this time. (GO TO PAGE 18, QUESTION 22)

4. Of the residents you listed in question 2, how many received cost containment training?

Year	Number who received cost containment training	
1978-79		(16-18)
1979-80		(19-21)
1980-81	(expected)	(22-24)

5. Which of the following describes the overall structure of the cost containment program you currently have? (Check one) (25)

1. ☐ The residency program has a structured identifiable cost containment program where the specific cost containment training activities are planned in advance
2. ☐ The residency program has a cost containment program which is not structured and which basically relies on the use of cost containment training activities as the need or situation arises.

6. Consider the various training activities (e.g., courses, segments of courses, routine clinical training and special features) which are used in your residency program to educate residents about containing medical care costs.

How many different training activities do you currently have in your cost containment program?

________________ activities (26-27)

7. For each activity you can identify please supply the information requested on one of the following pages (Labeled A - E)

If you have more than 5 such activities please reproduce pages 13 and 14 as many times as you need to, fill out the pages, label them F, G, H..., and attach them to the questionnaire.

7. **A**

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (49)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)

   __________ hours

2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________

   ____________________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ____________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

B

7.

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) *2 (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (49)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)

   __________ hours

2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________

   ______________________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

7. **C**

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) *3 (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (49)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)

   __________ hours

2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________

   ____________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

7. **D**

(1) Title of activity (if any): ____________________

____

____

____

(2) What type of activity is this? (Check one) *4 (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1 ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (Check one) (49)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)

   __________ hours

2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________

   ____________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ____________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

7. **E**

(1) Title of activity (if any):____________________

____

____

____

(2) What type of activity is this? (Check one) *5 (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________

____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________

____

(6) Is this activity required or elective? (49) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)

   __________ hours

2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________

   ______________________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in-part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ____________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

7. ☐

(1) Title of activity (if any):__________________

____

____

____

(2) What type of activity is this? (Check one) *6 (28)

1. ☐ Course
2. ☐ Routine clinical training (grand rounds, patient management conferences, etc.)
3. ☐ Special feature (seminar, symposium, workshop, lecture series, etc.)

(3) What are the cost containment objectives of this activity? (29)

(4) Indicate the instructional method(s) that are used to conduct this activity. (Check as many as apply) (30-42)

1. ☐ Classroom lecture
2. ☐ Discussion group
3. ☐ Ward rounds
4. ☐ Grand rounds
5. ☐ Clinical - pathologic conference
6. ☐ Management conference
7. ☐ In-patient chart audit
8. ☐ Ambulatory patient chart audit
9. ☐ Individual or group field exercise
10. ☐ Special medical care evaluation/cost studies
11. ☐ Case studies
12. ☐ Programmed instruction/self study
13. ☐ Other (specify) ____________________
____

(5) During which year of the resident's training is this activity taken? (Check all that apply) (43-48)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent year
5. ☐ Throughout the residency program
6. ☐ Other (specify) ____________________
____

(6) Is this activity required or elective? (49) (Check one)

1. ☐ Required
2. ☐ Elective
3. ☐ Required for some and elective for others

(7) Can you estimate the number of contact hours of cost containment training each resident receives in this activity during his/her residency? (Check all that apply) (50-53)

1. ☐ Yes (Please indicate)
____________ hours
2. ☐ No, the training is too well integrated with other activities (54)
3. ☐ No, contact time is dependent upon interests and available time of supervisory staff or residents (55)
4. ☐ No (specify) ____________________
______________________________________ (56)

(8) Does this activity have a syllabus or outline which is followed? (Check one) (57)

1. ☐ Yes (Please send us a copy with your return)
2. ☐ No

(9) To which residents is this activity provided/available? (Check one) (58)

1. ☐ All hospital residents
2. ☐ Residents in this residency program only
3. ☐ Residents in this residency program and some other residency programs

(10) How many residents in the residency program (listed on the label on page 1) who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this activity and how many residents who will become board eligible or will terminate their training in 1980-81 do you estimate will have participated in this acitvity?

Year	Number of board eligible or terminated who participated	
1978-79		(59-61)
1979-80		(62-64)
1980-81	(expected)	(65-67)

(11) Is this activity currently being funded (in part or entirely) by sources outside of your institution? (Check one) (68)

1. ☐ Yes
2. ☐ No

(12) Is this activity currently classified as a permanent part of the residency training program or a developmental/research endeavor? (Check one) (69)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor

(13) What will probably be the status of this activity 3 years from now? (Check one) (70)

1. ☐ Permanent part of residency training program
2. ☐ Developmental/research endeavor
3. ☐ Terminated
4. ☐ Other (specify) ________________

____

(14) If there is anything else you would like to tell us about this activity, please do so here. (71)

8. To what extent did each of the following influence you to begin cost containment training? (Check one for each item.)

	Little or no extent 1	Some extent 2	Moderate extent 3	Substantial extent 4	Very great extent 5	*7
(1) Urging of hospital administration						(6)
(2) Interest of one or a few residency program staff members						(7)
(3) Urging of affiliated medical school administration						(8)
(4) Urging of Federal government						(9)
(5) Availability of Federal funds						(10)
(6) Urging of state government						(11)
(7) Availability of state awards						(12)
(8) Potential or existing legislation or regulations						(13)
(9) Urging of third party payers						(14)
(10) Other (specify) ________________						(15)

9. In what year did the residency program begin cost containment training? (16-17)

Year 19________

10. Briefly state the major objectives of your cost containment training program(s)? (18)

11. How much emphasis is placed on each of the following subject areas in your cost containment program? (Check one box for each area.)

	Great emphasis 1	Substantial emphasis 2	Moderate emphasis 3	Some emphasis 4	Little or no emphasis 5	
1.. Historical data on increases in medical care costs	☐	☐	☐	☐	☐	(19)
2. Factors that have contributed to increasing costs	☐	☐	☐	☐	☐	(20)
3. Role of third party payers in contributing to medical care cost increases	☐	☐	☐	☐	☐	(21)
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)	☐	☐	☐	☐	☐	(22)
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities	☐	☐	☐	☐	☐	(23)
6. Physicians role in generating costs	☐	☐	☐	☐	☐	(24)
7. Potential of physicians for controlling cost increases	☐	☐	☐	☐	☐	(25)
8. Role and responsibility of physicians for cost containment	☐	☐	☐	☐	☐	(26)
9. Techniques for establishing reasonable physician fees	☐	☐	☐	☐	☐	(27)
10. Criteria for selecting the most appropriate locations for care (e.g., hospital, physician's office, out-patient clinic, extended care facility)	☐	☐	☐	☐	☐	(28)
11. Techniques and cost saving potential of preadmission hospital testing	☐	☐	☐	☐	☐	(29)
12. Techniques for analyzing and assessing the needs and cost-effectiveness of hospital ancillary services	☐	☐	☐	☐	☐	(30)
13. Benefits/costs of diagnostic tests	☐	☐	☐	☐	☐	(31)
14. Familiarization with the costs of diagnostic tests	☐	☐	☐	☐	☐	(32)
15. Post diagnostic/treatment assessment of patient care costs	☐	☐	☐	☐	☐	(33)
16. Appropriate use and costs for x-rays	☐	☐	☐	☐	☐	(34)
17. Benefits/costs of drugs	☐	☐	☐	☐	☐	(35)
18. Relationship of quality and costs	☐	☐	☐	☐	☐	(36)
19. Efficient use of paraprofessionals and other health workers	☐	☐	☐	☐	☐	(37)
20. Length of stay planning	☐	☐	☐	☐	☐	(38)
21. Techniques for medical audit and utilization review	☐	☐	☐	☐	☐	(39)
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care, etc.)	☐	☐	☐	☐	☐	(40)
23. Preventive medicine as a way to contain health care costs	☐	☐	☐	☐	☐	(41)

12. For each year listed below please indicate the amount of funding received from each funding source to run your cost containment program. Estimate if necessary. Insert "O" if no funds were received from that source. Prorate cost if there is more than one program in the hospital/clinic which has shared the cost of developing cost containment programs.

	Year					
Money for your cost containment program from . . .	1978-79 (Actual)		1979-80 (Actual)		1980-81 (Budgeted)	
1. Hospital budget		(42-47)		(48-53)		(54-59)
2. Affiliated medical school budget		(60-65)		(66-71)		(72-77)*8
3. Federal government		(6-11)		(12-17)		(18-23)
4. State government		(24-29)		(30-35)		(36-41)
5. Special grant grantor: ______		(42-47)		(48-53)		(54-59)
6. Other grants grantor: ______		(60-65)		(66-71)		(72-77)*9
7. grantor: ______		(6-11)		(12-17)		(18-23)
8. grantor ______		(24-29)		(30-35)		(36-41)

13. Has the effectiveness of your cost containment program been evaluated? (Check one) (42)

1. ☐ Yes, an evaluation has been completed (GO TO QUESTION 14)
2. ☐ Yes, an evaluation is in progress (GO TO QUESTION 15)
3. ☐ No evaluation has been made or is in progress (GO TO QUESTION 17)

14. Has this evaluation been documented? (Check one) (43)

1. ☐ Yes (PLEASE SEND US A COPY)
2. ☐ No

15. Which of the activities indicated in question 7 were/are being evaluated? (Check all that apply) (44-49)

1. ☐ A
2. ☐ B
3. ☐ C
4. ☐ D
5. ☐ E
6. ☐ Other(s) (please specify) __________

____

16. Which of the following measures have been used in the evaluation? (Check all that apply) (50-57)

1. ☐ Quality of care
2. ☐ Physician productivity
3. ☐ Length of stay
4. ☐ Frequency of laboratory services
5. ☐ Cost per admission
6. ☐ Cost as measured by other means (specify)

____

____

7. ☐ Resident's awareness or concern about medical care costs
8. ☐ Other (specify)

____

17. If you would like to make any comments about evaluating your cost containment program, please do so here. (58)

18. Listed below are a number of problems that could have been encountered in implementing and/or operating the cost containment program. Please indicate to what extent each was a problem for your program.

(Check one box for each problem)

Problems	Very great extent 1	Substantial extent 2	Moderate extent 3	Some extent 4	Little or no extent 5	
1. Lack of financial resources						(59)
2. Lack of time in residency training program						(60)
3. Lack of readily available training material						(61)
4. Lack of trained instructors						(62)
5. Senior staff resistance						(63)
6. Resident resistance						(64)
7. Administration resistance						(65)
8. Belief that cost containment program would have no effect						(66)
9. Other (specify) ______________						(67)

If you have any documentation which reflects this we would appreciate a copy.

19. Are there any changes planned for your cost containment program? (Check one) (68)

1. ☐ Yes (GO TO QUESTION 20)
2. ☐ No (GO TO QUESTION 35)

20. If you have specific changes planned please indicate in which of the following areas such changes will take place. (Check all that apply) (69-71)

1. ☐ Discontinue the program
2. ☐ Exclude some features or activities now in the program. Please list. Refer to activities listed in question 7.

3. ☐ Add new features or activities to the program. Please list.

21. What will be the effect of the above changes on contact hours? (Check one) (72-75)

1. ☐ Increase cost containment training by __________ contact hours
2. ☐ Decrease cost containment training by __________ contact hours
3. ☐ Not change the number of contact hours

IF YOU CURRENTLY HAVE A COST CONTAINMENT PROGRAM GO TO QUESTION 35.

22. Listed below are a number of problems that could prevent the establishment of a cost containment education/training program. Please indicate to what extent each was a problem for you.

(Check one box for each problem)

Problems	Very great extent 1	Substantial extent 2	Moderate extent 3	Some extent 4	Little or no extent 5	
1. Lack of financial resources						*10 (6)
2. Lack of time in residency training program						(7)
3. Lack of readily available training material						(8)
4. Lack of trained instructors						(9)
5. Senior staff resistance						(10)
6. Resident resistance						(11)
7. Administration resistance						(12)
8. Belief that cost containment program would have no effect						(13)
9. Other (specify) ______________						(14)

If you have any documentation which reflects this we would appreciate a copy.

If you do not currently have a program and are not planning one at this time GO TO QUESTION 26.

PROGRAMS IN PLANNING STAGE (Questions 23-25)

23. When will this program be implemented?

_______ (month) 19_______ (year) (15-18)

24. Briefly state the major objectives of your cost containment training programs. (19)

25. During what year(s) will your cost containment training be provided to your residents? (Check all that apply) (20-25)

1. ☐ First year
2. ☐ Second year
3. ☐ Third year
4. ☐ Fourth or subsequent years
5. ☐ Throughout the residency program
6. ☐ Other (specify) _______________

NO CURRENT PROGRAM

26. Did your residency program ever offer cost containment training to its residents and then discontinue it? (Check one) (26)

1. ☐ Yes (GO TO QUESTION 27)
2. ☐ No (GO TO QUESTION 35)

DISCONTINUED PROGRAMS (Questions 27-34)

27. When did this program originally begin?

_______ (month) 19_______ (year) (27-30)

28. When was this program discontinued?

_______ (month) 19_______ (year) (31-34)

29. How many residents in this program who became board eligible or terminated their training in 1978-79 and 1979-80 have participated in this discontinued cost containment program? (If the program was discontinued before any of these graduates could have participated insert N/A.)

Year	Number of board eligible or terminated who participated	
1978-79		(35-37)
1979-80		(38-40)

30. Listed below are a number of problems which could have contributed to your discontinuing your cost containment program. Please indicate to what extent each did contribute.

(Check one box for each problem)	Very great extent 1	Substantial extent 2	Moderate extent 3	Some extent 4	Little or or extent 5	
1. Lack of financial resources						(41)
2. Lack of time in residency training program						(42)
3. Lack of readily available training material						(43)
4. Lack of trained instructors						(44)
5. Senior staff resistance						(45)
6. Resident resistance						(46)
7. Administration resistance						(47)
8. Belief that cost containment program has no effect						(48)
9. Other (specify) _______						(49)

If you have any documentation which reflects this we would appreciate a copy.

31. Has the effectiveness of this discontinued program been evaluated? (Check one) (50)

1. ☐ Yes, an evaluation has been completed (GO TO QUESTION 32)
2 ☐ Yes, an evaluation is in progress (GO TO QUESTION 33)
3. ☐ No evaluation has been made or is in progress (GO TO QUESTION 34)

32. Has this evaluation been documented? (Check one) (51)

1. ☐ Yes (PLEASE SEND US A COPY)
2. ☐ No

33. Which of the following measures have been used in the evaluation? (Check all that apply) (52-59)

1. ☐ Quality of care
2. ☐ Physician productivity
3. ☐ Length of stay
4. ☐ Frequency of laboratory services
5. ☐ Cost per admission
6. ☐ Cost as measured by other means (specify)

   ____

   ____

7. ☐ Resident's awareness or concern about medical care costs
8. ☐ Other (specify)

   ____

34. If you would like to make any comments about evaluating your cost containment program, please do so here. (60)

35. Would you like to receive a copy of our final report on this study? (Check one) (61)

1. ☐ Yes
2. ☐ No

36. If you have any additional comments you would like to make, please do so here. (62)

GAO QUESTIONNAIRE ADDRESSING COST-CONTAINMENT TRAINING IN CONTINUING MEDICAL EDUCATION

In March 1981 we sent questionnaires (see pp. 10 to 105) to course coordinators or instructors for a statistical sample of CME courses offered between September 1, 1979, and December 31, 1980. The purpose of the questionnaire was to determine how many CME courses include cost-containment training as a part of the instruction. In addition, for those courses offering such training, we asked the course coordinators/instructors to provide information about the training.

METHODOLOGY

We determined our universe and sample sizes by using the September 7, 1979, and September 3, 1980, special issues of "The Journal of the American Medical Association," which listed CME courses for physicians. 1/, 2/ The publications list courses submitted by about 1,500 AMA-accredited institutions and organizations, but they are not an all-inclusive list of CME activity in the United States. Many courses are not received in time to make the list, and courses offered by non-AMA-accredited institutions and organizations do not appear.

According to an AMA official, the course lists are not comprehensive, but the listed courses are representative of the type of CME courses offered nationwide. Because of time limitations and the representativeness of the AMA lists, we did not attempt to identify every CME course available in the United States. For the purposes of this report, therefore, the universe was confined to the AMA lists.

From the two lists, we identified an original universe of 10,211 CME courses offered between September 1, 1979, and December 31, 1980. (The two lists cover the period September 1, 1979, through August 31, 1981.) We randomly selected 200 of these courses for our sample.

1/"Continuing Education Courses for Physicians," The Journal of the American Medical Association, Volume 242, Number 9, September 7, 1979, pp. 785-996.

2/"Continuing Education Courses for Physicians," The Journal of the American Medical Association, Volume 244, Number 9, September 3, 1980, pp. 867-1066.

After two followups to nonrespondents, we received 161 usable responses--an 80.5-percent response rate. We adjusted our universe to reflect our estimate that, if we had sent the questionnaire to the entire universe of 10,211, we would have received 8,220 responses. 1/

We designed the statistical sample to yield sampling errors of no more than ± 7 percent at the 95-percent confidence level.

SUMMARY OF RESPONSES TO SELECTED QUESTIONS

The following are summaries of responses to selected questions from the questionnaire.

Question 2: Did (does) this course provide cost-containment training or information to the enrollees?

Answers:

	Projected CME courses	
	Number	Sampling error
Yes	2,195	558
No, but we are planning to do so in future versions of this course	357	257
No, and we are not planning to do so at this time	2,706	593
No, and I don't know if future versions of this course will include cost-containment training	2,961	605

1/The sampling error of this estimate at the 95-percent confidence level is 557. That is, we are 95-percent confident that the actual number of responses would range from 7,663 to 8,777.

Question 3: Which of the following describes the overall structure of the cost-containment elements of the course?

Answers:

	Projected CME courses	
	Number	Sampling error
The course contained a structured, identifiable cost-containment element(s) where this element(s) was planned in advance.	715	355
The course contained a cost-containment element(s) which was neither structured nor planned in advance. The subject was addressed as the need arose (such as in response to a question from an enrollee).	1,481	485

Question 5: Indicate the instructional method(s) that were used to conduct the cost-containment training.

	Projected CME courses	
	Number	Sampling error
Lecture	1,889	531
Discussion group	1,379	471
Ward rounds	153	171
Grand rounds	511	304
Clinical-pathologic conference	102	140
Management conference	408	274
Live clinics	51	99
Laboratory work	102	140
Enrollee observation or performance of procedures	255	219
Patient demonstration	255	219
Patient chart audit	306	239
Audiovisual presentations	1,021	416
Special medical care evaluation/cost studies	153	171
Case studies	715	355
Self-study	51	99
Other	102	140

Projected number of enrollees in CME courses. (Refers to question 8).

	Projected number of enrollees	Sampling error
Practicing physicians	61,216	27,347
Residents	19,095	9,250
Medical undergraduates	10,262	8,244
Nurses	12,815	9,277
Physician assistants	868	738
Hospital administrators/other hospital administrative staff	3,012	3,214
Other	13,019	16,013

Question 9: How much emphasis is placed on each of the following cost-containment topics during the course?

	Projected CME courses				
		Little or no to moderate emphasis		Substantial to very great emphasis	
	No. who would have responded	Percent	Sampling error	Percent	Sampling error
1. Historical data on increases in medical care cost	2,042	87.500	10.277	12.500	10.277
2. Factors that have contributed to increasing costs	2,093	78.049	12.701	21.951	12.701
3. Role of third-party payers in contributing to medical care cost increases	1,991	94.872	6.944	5.128	6.944
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)	1,940	94.737	7.124	5.263	7.124
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities	2,042	67.500	14.555	32.500	14.555
6. Physicians' role in generating costs	2,042	60.000	15.224	40.000	15.224
7. Potential of physicians for controlling cost increases	2,042	57.500	15.362	42.500	15.362
8. Role and responsibility of physicians for cost containment	1,991	61.538	15.316	38.462	15.316
9. Techniques for establishing reasonable physician fees	1,940	89.474	9.791	10.526	9.791
10. Criteria for selecting the most appropriate locations for care (e.g., hospital, physician's office, outpatient clinic, extended care facility)	2,093	73.171	13.596	26.829	13.596
11. Techniques and cost-saving potential of preadmission hospital testing	1,940	78.947	13.007	21.053	13.007
12. Techniques for analyzing and assessing the need for and cost-effectiveness of hospital ancillary services	2,042	80.000	12.430	20.000	12.430

	Projected CME courses				
		Little or no to moderate emphasis		Substantial to very great emphasis	
	No. who would have responded	Percent	Sampling error	Percent	Sampling error
13. Benefits/costs of diagnostic tests	2,093	63.415	14.780	36.585	14.780
14. Familiarization with the costs of diagnostic tests	2,042	72.500	13.876	27.500	13.876
15. Post-diagnostic/treatment assessment of patient care costs	2,093	90.244	9.105	9.756	9.105
16. Appropriate use and costs for X-rays	2,042	60.000	15.224	40.000	15.224
17. Benefits/costs of drugs	1,991	64.103	15.102	35.897	15.102
18. Relationship of quality and costs	1,991	56.410	15.611	43.590	15.611
19. Efficient use of paraprofessionals and other health workers	1,991	69.231	14.530	30.769	14.530
20. Length-of-stay planning	2,042	67.500	14.555	32.500	14.555
21. Techniques for medical audit and utilization review	1,991	66.667	14.841	33.333	14.841
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care)	2,042	60.000	15.224	40.000	15.224
23. Preventive medicine as a way to contain health care costs	2,093	63.415	14.780	36.585	14.780
24. Other (specify)	153	66.667	64.690	33.333	64.690

Question 16: Listed below are a number of problems which could be encountered when considering, implementing, and/or conducting a course involving cost containment or cost-containment elements. Please indicate to what extent each was a problem for this particular course.

	Projected CME courses				
		Little or no to moderate extent		Substantial to very great emphasis	
Problems	No. who would have responded	Percent	Sampling error	Percent	Sampling error
1. Lack of financial resources	2,706	75.472	11.579	24.528	11.579
2. Lack of enrollee interest	2,655	76.923	11.450	23.077	11.450
3. Lack of readily available training material	2,706	73.585	11.865	26.415	11.865
4. Lack of trained instructors	2,655	82.692	10.281	17.308	10.281
5. Resistance from senior staff or sponsoring organization	2,604	96.078	5.327	3.922	5.327
6. Resistance from administration of sponsoring organization	2,604	96.078	5.327	3.922	5.327
7. Belief that the course would have no effect	2,655	88.462	8.682	11.538	8.682
8. Other	255	40.000	47.537	60.000	47.537

Question 10: To what extent were each of the following reasons for starting this cost-containment training?

		Projected CME courses			
		Little or no to moderate emphasis		Substantial to very great emphasis	
	No. who would have responded to this question	Percent	Sampling error	Percent	Sampling error
1. Urging of hospital administration(s) or staff	1,940	78.947	13.007	78.947	13.007
2. Urging of specialty society	1,838	88.889	10.309	88.889	10.309
3. Urging of medical school(s)	1,685	93.939	8.186	93.939	8.186
4. Interest of other physicians	2,042	72.500	13.876	72.500	13.876
5. Urging of Federal Government	1,940	73.684	14.049	73.684	14.049
6. Availability of Federal funds	1,787	94.286	7.725	94.286	7.725
7. Urging of State government	1,787	91.429	9.317	91.429	9.317
8. Availability of State awards	1,685	100.000	0.000	100.000	0.000
9. Urging of third-party payers	1,940	92.105	8.603	92.105	8.603
10. Availability of other funds (specify)	1,430	96.429	6.931	96.429	6.931
11. Potential or existing legislation or regulations	1,583	90.323	10.476	90.323	10.476
12. Other	460	55.556	34.095	55.556	34.095

U.S. GENERAL ACCOUNTING OFFICE

SURVEY TO DETERMINE THE EXTENT OF COST CONTAINMENT EDUCATION IN CONTINUING MEDICAL EDUCATION COURSES

ID (1-3)

Card (4)

INTRODUCTION

The purpose of this questionnaire is to determine what has been done to include cost containment education in continuing education courses. By cost containment education we mean education/training in the techniques for providing quality medical care at the lowest possible cost.

For our survey we have randomly selected courses from those listed in the 1979 and 1980 special editions of the Journal of the American Medical Association - Continuing Education Courses For Physicians which were begun during the period from September 1, 1979 thru December 31, 1980.

The course indicated in the label above has been selected as one of these courses. The person indicated has been identified as either the instructor or a continuing education coordinator for the sponsoring institution. The dates during which the course was offered are also listed. When answering the questions consider the content of the course as given or planned for those dates. If the course is continuing over a long period of time (e.g., a seminar series) some of the sessions may not have been held. In this case there is a need to consider the content of the sessions to be held as well as those already held.

1. Please provide the name, title and telephone number of the person we should contact if further information is required.

____
(NAME)

____
(TITLE)

____
(AREA CODE) (TELEPHONE NUMBER)

EXTENT AND DESIGN OF COURSES

We are interested in learning the extent to which the course mentioned in the label is concerned with teaching cost containment. Courses may be designed solely for the purpose of teaching cost containment principles, techniques or approaches, may be devoted only in part to cost containment training (e.g., a single session devoted to cost containment in a course, conference, seminar, etc.) or may not contain any elements or any mention of cost containment. The content of the course may be planned (e.g., following a syllabus) or not planned (e.g., discussions during ward rounds or conferences).

These courses can be conducted using a variety of instructional methods including:

Lecture
Discussion group
Ward rounds
Grand rounds
Clinical - pathologic conference
Management conference
Live clinics
Laboratory work
Enrollee observation or performance of procedures
Patient demonstration
Patient chart audit
Audiovisual presentations
Special medical care evaluation/cost studies
Case studies
Self study

2. Did (does) this course provide cost containment training or information to the enrollees? (Check one) (5)

1. ☐ Yes (GO TO QUESTION 3)
2. ☐ No, but we are planning to do so in future versions of this course (GO TO QUESTION 16)
3. ☐ No, and we are not planning to do so at this time (GO TO QUESTION 16)
4. ☐ No, and I don't know if future versions of this course will include cost containment training (GO TO QUESTION 16)

3. Which of the following describes the overall structure of the cost containment elements of the course? (Check one) (6)

   1. ☐ The course contained a structured, identifiable cost containment element(s) where this element(s) was planned in advance.

   2. ☐ The course contained a cost containment element(s) which was neither structured nor planned in advance. The subject was addressed as the need arose (such as in response to a question from an enrollee).

4. What were the cost containment objectives of this course or element of the course? (7)

5. Indicate the instructional method(s) that were used to conduct the cost containment training. (Check as many as apply.) (8-23)

   1. ☐ Lecture
   2. ☐ Discussion group
   3. ☐ Ward rounds
   4. ☐ Grand rounds
   5. ☐ Clinical - pathologic conference
   6. ☐ Management conference
   7. ☐ Live clinics
   8. ☐ Laboratory work
   9. ☐ Enrollee observation or performance of procedures
   10. ☐ Patient demonstration
   11. ☐ Patient chart audit
   12. ☐ Audiovisual presentations
   13. ☐ Special medical care evaluation/cost studies
   14. ☐ Case studies
   15. ☐ Self study
   16. ☐ Other (specify) ____________________

   ____

6. Can you estimate the number of contact hours of cost containment training that each enrollee received during this course? (Check all that apply.) (24-27)

   1. ☐ Yes (Please indicate)

      ____________ hours

   2. ☐ No, the training was too well integrated with other activities

   3. ☐ No, contact time is dependent upon available time during the course

   4. ☐ No (specify) ____________________

      ____

7. Did this course have a syllabus or outline which was followed? (Check one) (28)

   1. ☐ Yes (Please send us a copy with your return)

   2. ☐ No

8. Listed below are different types of medical personnel. Estimate how many of each type attended the course as enrollees during the time mentioned in the label on page 1.

   (For those courses held over several sessions over a long period of time (e.g., seminar series) indicate the average attendance in each category.)

	Number of Enrollees	
1. Practicing physicians		(29-32)
2. Residents		(33-36)
3. Medical undergraduates		(37-40)
4. Nurses		(41-44)
5. Physician assistants		(45-48)
6. Hospital administrators/ other hospital administrative staff		(49-52)
7. Other (specify)		(53-56)

9. How much emphasis is placed on each of the following cost containment topics during the course? (Check one box for each area.)

	Great emphasis 1	Substantial emphasis 2	Moderate emphasis 3	Some emphasis 4	Little or no emphasis 5	
1. Historical data on increases in medical care costs						(57)
2. Factors that have contributed to increasing costs						(58)
3. Role of third party payers in contributing to medical care cost increases						(59)
4. Federal programs designed to contain cost increases (PSRO, medical care payment limits)						(60)
5. Scheduling hospital admissions to ensure efficient and economic use of hospital facilities						(61)
6. Physicians role in generating costs						(62)
7. Potential of physicians for controlling cost increases						(63)
8. Role and responsibility of physicians for cost containment						(64)
9. Techniques for establishing reasonable physician fees						(65)
10. Criteria for selecting the most appropriate locations for care (e.g., hospital, physician's office, out-patient clinic, extended care facility)						(66)
11. Techniques and cost saving potential of preadmission hospital testing						(67)
12. Techniques for analyzing and assessing the need for and cost-effectiveness of hospital ancillary services						(68)
13. Benefits/costs of diagnostic tests						(69)
14. Familiarization with the costs of diagnostic tests						(70)
15. Post diagnostic/treatment assessment of patient care costs						(71)
16. Appropriate use and costs for x-rays						(72)
17. Benefits/costs of drugs						(73)
18. Relationship of quality and costs						(74)
19. Efficient use of paraprofessionals and other health workers						(75)
20. Length of stay planning						(76)
21. Techniques for medical audit and utilization review						(77)
22. Criteria for selecting the most appropriate level of hospital care (e.g., intensive care, standard care, emergency room care, etc.)						(78)
23. Preventive medicine as a way to contain health care costs						(79)
24. Other (specify)						(80)

10. To what extent were each of the following, reasons for starting this cost containment training? (Check one for each item.)

	Very great extent 1	Substantial extent 2	Moderate extent 3	Some extent 4	Little or no extent 5	*2
(1) Urging of hospital administration(s) or staff	☐	☐	☐	☐	☐	(5)
(2) Urging of specialty society	☐	☐	☐	☐	☐	(6)
(3) Urging of medical school(s)	☐	☐	☐	☐	☐	(7)
(4) Interest of other physicians	☐	☐	☐	☐	☐	(8)
(5) Urging of Federal government	☐	☐	☐	☐	☐	(9)
(6) Availability of Federal funds	☐	☐	☐	☐	☐	(10)
(7) Urging of state government	☐	☐	☐	☐	☐	(11)
(8) Availability of state awards	☐	☐	☐	☐	☐	(12)
(9) Urging of third party payers	☐	☐	☐	☐	☐	(13)
(10) Availability of other funds (specify) ______________________	☐	☐	☐	☐	☐	(14)
(11) Potential or existing legislation or regulations	☐	☐	☐	☐	☐	(15)
(12) Other (specify) ______________________	☐	☐	☐	☐	☐	(16)

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11. In what year was this course first taught with cost containment included? (17-18)

Year 19_______

12. Has the effectiveness of the cost containment elements of the course been evaluated? (19) (Check one)

1. ☐ Yes, an evaluation has been completed (GO TO QUESTION 13)
2. ☐ Yes, an evaluation is in progress (GO TO QUESTION 14)
3. ☐ No, but an evaluation is planned (GO TO QUESTION 14)
4. ☐ No, an evaluation has not been made, is not in progress and is not planned (GO TO QUESTION 15)

13. Has this evaluation been documented? (Check one) (20)

1. ☐ Yes (PLEASE SEND US A COPY)
2. ☐ No

14. Which of the following measures have been used or are going to be used in the evaluation? (Check all that apply.) (21-28)

1. ☐ Quality of care
2. ☐ Physician productivity
3. ☐ Length of stay
4. ☐ Frequency of laboratory services
5. ☐ Cost per admission
6. ☐ Cost as measured by other means (specify) ______________________ ______________________
7. ☐ Physician's awareness or concern about medical care costs
8. ☐ Other (specify) ______________________

IF YOU ANSWERED QUESTIONS 13 AND/OR 14, GO TO QUESTION 16.

15. Why have you decided not to evaluate the cost containment element(s) of the course? (Check all that apply.) (29-35)

1. ☐ Lack of time
2. ☐ Lack of interest
3. ☐ Lack of funds
4. ☐ Lack of qualified evaluators
5. ☐ Cost containment is too small a part of the course
6. ☐ Too difficult to obtain outcome measures
7. ☐ Other (specify) ____________________

____

16. Listed below are a number of problems which could be encountered when considering, implementing and/or conducting a course involving cost containment or cost containment elements. Please indicate to what extent each was a problem for this particular course.

If you never considered cost containment with respect to this course, check here ☐ (36) and GO TO QUESTION 17.

(Check one box for each problem.)

Problems	Very great extent 1	Substantial extent 2	Moderate extent 3	Some extent 4	Little or no extent 5	
1. Lack of financial resources						(37)
2. Lack of enrollee interest						(38)
3. Lack of readily available training material						(39)
4. Lack of trained instructors						(40)
5. Resistance from senior staff of sponsoring organization						(41)
6. Resistance from administration of sponsoring organization						(42)
7. Belief that the course would have no effect						(43)
8. Other (specify) ____________ ____________						(44)

IF YOU HAVE ANY DOCUMENTATION WHICH REFLECTS ANY OF THESE PROBLEMS WE WOULD APPRECIATE A COPY.

17. Would you like to receive a copy of our final report on this study? (Check one) (45)

1. ☐ Yes
2. ☐ No

18. If you have any additional comments you would like to make, such as giving details of any future plans, please do so here. (46)

Please return in accompanying envelope to:

Cost Containment Study
U.S. General Accounting Office
5705 Thurston Avenue
Virginia Beach, VA 23455

MEDICAL SCHOOLS

VISITED DURING FIELDWORK

University of California, Davis, School of Medicine, Davis, California

University of California, Los Angeles, School of Medicine, Los Angeles, California

University of Southern California School of Medicine, Los Angeles, California

Stanford University School of Medicine, Stanford, California

University of California, San Francisco, School of Medicine, San Francisco, California

George Washington University School of Medicine and Health Sciences, District of Columbia

University of Missouri, Kansas City, School of Medicine, Kansas City, Missouri

State University of New York at Buffalo School of Medicine, Buffalo, New York

Columbia University College of Physicians and Surgeons, New York, New York

Cornell University Medical College, New York, New York

Albert Einstein College of Medicine of Yeshiva University, New York, New York

University of Rochester School of Medicine and Dentistry, Rochester, New York

Medical College of Ohio at Toledo, Toledo, Ohio

Jefferson Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania

University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania

University of Texas Southwestern Medical School at Dallas, Dallas, Texas

University of Texas Medical School at San Antonio, San Antonio, Texas

Eastern Virginia Medical School of the Eastern Virginia Medical Authority, Norfolk, Virginia

RESIDENCY PROGRAMS

VISITED DURING FIELDWORK

University of California, Los Angeles Hospital and Clinics, Los Angeles, California

Huntington Memorial Hospital, Pasadena, California

University of California, San Francisco Hospital, San Francisco, California

Stanford University Medical Center, Stanford, California

Jackson Memorial Hospital, Miami, Florida

Strong Memorial Hospital, Rochester, New York

Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Given Health Care Center of the University of Vermont College of Medicine, Burlington, Vermont

MEDICAL SCHOOLS IN THE UNITED STATES

Alabama

University of Alabama School of Medicine, Birmingham
University of South Alabama College of Medicine, Mobile

Arizona

University of Arizona College of Medicine, Tucson

Arkansas

University of Arkansas College of Medicine, Little Rock

California

University of California, San Francisco School of Medicine, San Francisco
University of Southern California School of Medicine, Los Angeles
Stanford University School of Medicine, Stanford
Loma Linda University School of Medicine, Loma Linda
University of California, Los Angeles School of Medicine, Los Angeles
University of California, San Diego School of Medicine, La Jolla
University of California, Davis, School of Medicine, Davis
University of California, Irvine California College of Medicine, Irvine

Colorado

University of Colorado School of Medicine, Denver

Connecticut

Yale University School of Medicine, New Haven
University of Connecticut School of Medicine, Farmington

District of Columbia

George Washington University School of Medicine
Georgetown University School of Medicine
Howard University College of Medicine

Florida

University of Miami School of Medicine, Miami
University of Florida College of Medicine, Gainesville
University of South Florida College of Medicine, Tampa

Georgia

Medical College of Georgia, School of Medicine, Augusta
Emory University School of Medicine, Atlanta
School of Medicine at Morehouse College, Atlanta

Hawaii

University of Hawaii John A. Burns School of Medicine, Honolulu

Illinois

Rush Medical College of Rush University, Chicago
University of Chicago Pritzker School of Medicine, Chicago
Northwestern University Medical School, Chicago
University of Illinois College of Medicine, Chicago
University of Health Sciences/The Chicago Medical School, Chicago
Loyola University of Chicago Stritch School of Medicine, Maywood
Southern Illinois University School of Medicine, Springfield

Indiana

Indiana University School of Medicine, Indianapolis

Iowa

University of Iowa College of Medicine, Iowa City

Kansas

University of Kansas School of Medicine, Kansas City

Kentucky

University of Louisville School of Medicine, Louisville
University of Kentucky College of Medicine, Lexington

Louisiana

Tulane University School of Medicine, New Orleans
Louisiana State University School of Medicine in New Orleans, New Orleans
Louisiana State University School of Medicine in Shreveport, Shreveport

Maryland

University of Maryland School of Medicine, Baltimore
The Johns Hopkins University School of Medicine, Baltimore
Uniformed Services University of the Health Sciences School of Medicine, Bethesda

Massachusetts

Harvard Medical School, Boston
Boston University School of Medicine, Boston
Tufts University School of Medicine, Boston
University of Massachusetts Medical School, Worcester

Michigan

University of Michigan Medical School, Ann Arbor
Wayne State University School of Medicine, Detroit
Michigan State University College of Human Medicine, East Lansing

Minnesota

University of Minnesota Medical School, Minneapolis
University of Minnesota, Duluth School of Medicine, Duluth
Mayo Medical School, Rochester

Mississippi

University of Mississippi School of Medicine, Jackson

Missouri

Washington University School of Medicine, St. Louis
University of Missouri, Columbia School of Medicine, Columbia
Saint Louis University School of Medicine, St. Louis
University of Missouri, Kansas City School of Medicine, Kansas City

Nebraska

University of Nebraska College of Medicine, Omaha
Creighton University School of Medicine, Omaha

Nevada

University of Nevada School of Medical Sciences, Reno

New Hampshire

Dartmouth Medical School, Hanover

New Jersey

CMDNJ-New Jersey Medical School, Newark
CMDNJ-Rutgers Medical School, Piscataway

New Mexico

University of New Mexico School of Medicine, Albuquerque

New York

Columbia University College of Physicians & Surgeons, New York
Albany Medical College of Union University, Albany
State University of New York at Buffalo School of Medicine, Buffalo
State University of New York Downstate Medical Center, Brooklyn
New York Medical College, Valhalla
State University of New York Upstate Medical Center, Syracuse
New York University School of Medicine, New York
Cornell University Medical College, New York
University of Rochester of Medicine & Dentistry, Rochester
Albert Einstein College of Medicine of Yeshiva University, New York
Mt. Sinai School of Medicine of City University of New York, New York
State University of New York, Health Services Center Stony Brook School of Medicine, Stony Brook

North Carolina

University of North Carolina School of Medicine, Chapel Hill
Bowman Gray School of Medicine of Wake Forest University, Winston-Salem
Duke University School of Medicine, Durham
East Carolina University School of Medicine, Greenville

North Dakota

University of North Dakota School of Medicine, Grand Forks

Ohio

Case Western Reserve University School of Medicine, Cleveland
Ohio State University College of Medicine, Columbus
University of Cincinnati College of Medicine, Cincinnati
Medical College of Ohio at Toledo, Toledo
Northeastern Ohio Universities College of Medicine, Rootstown
Wright State University School of Medicine, Dayton

Oklahoma

University of Oklahoma College of Medicine, Oklahoma City
Oral Roberts University School of Medicine, Tulsa

Oregon

University of Oregon School of Medicine, Portland

Pennsylvania

University of Pennsylvania School of Medicine, Philadelphia
Jefferson Medical College of Thomas Jefferson University, Philadelphia
Medical College of Pennsylvania, Philadelphia
Hahnemann Medical College and Hospital, Philadelphia
University of Pittsburgh School of Medicine, Pittsburgh
Temple University School of Medicine, Philadelphia
Pennsylvania State University College of Medicine, Hershey

Puerto Rico

University of Puerto Rico School of Medicine, San Juan
Catholic University of Puerto Rico School of Medicine, Ponce
Universidad del Caribe Escuela de Medicina, Cayey

Rhode Island

Brown University Program in Medicine, Providence

South Carolina

Medical University of South Carolina College of Medicine, Charleston
University of South Carolina School of Medicine, Columbia

South Dakota

University of South Dakota School of Medicine, Vermillion

Tennessee

Vanderbilt University School of Medicine, Nashville
University of Tennessee College of Medicine, Memphis
Meharry Medical College School of Medicine, Nashville
East Tennessee State University College of Medicine, Johnson City

Texas

University of Texas Medical School at Galveston, Galveston
Baylor College of Medicine, Houston
University of Texas Southwestern Medical School at Dallas, Dallas
University of Texas Medical School at San Antonio, San Antonio
University of Texas Medical School at Houston, Houston
Texas Tech University School of Medicine, Lubbock
Texas A & M University College of Medicine, College Station

Utah

University of Utah College of Medicine, Salt Lake City

Vermont

University of Vermont College of Medicine, Burlington

Virginia

University of Virginia School of Medicine, Charlottesville
Medical College of Virginia of Virginia Commonwealth University, Richmond
Eastern Virginia Medical School, Norfolk

Washington

University of Washington School of Medicine, Seattle

West Virginia

West Virginia University School of Medicine, Morgantown
Marshall University School of Medicine, Huntington

Wisconsin

University of Wisconsin Medical School, Madison
Medical College of Wisconsin, Milwaukee

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